,

```
RESULT 1
ABB99462
                                                                                                             February 8, 2005, 13:20:30 ; Search time 88.4866 Seconds (without alignments) 869.796 Million cell updates/sec
                                                                                                                                                                                      US-09-816-653A-2
1061
1 MSQPAGNQTSPGATEDYSYG......wAHLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                2105692
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                         2105692 seqs, 386760381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                             OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                     BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        geneseqp1990s:*
geneseqp2000s:*
geneseqp2001s:*
geneseqp2001s:*
geneseqp2003as:*
geneseqp2003bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Geneseg 16Dec04:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               geneseqp1980s:*
                                                                                                                                                                                                                                                                                                                                                                                                        Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                score:
                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database
                                                                                                                    Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	Abb99462 Amino aci	Aao17374 Human ret	Novel	Aau04557 Human Str	Aab88572 Human hyd	Human	Aau78575 Human Str	Aao19413 Human mol	Human	Abu80778 Human PRO	Novel	Human	Abj72395 Human PRO	Abo34290 Human sec	Abj72097 Human mem	Novel	Novel	Adb73217 Novel hum	Adb78299 Novel hum	Adb84947 Human PRO	Adb78053 Novel hum	Adb87119 Human PRO	Adb84701 Human PRO	Adb83816 Novel hum	Adb72971 Novel hum
ID	ABB99462	AA017374	ABU82087	AAU04557	AAB88572	AAU83631	AAU78575	AA019413	ADA54816	ABU80778	ABO33744	ABJ72267	ABJ72395	ABO34290	ABJ72097	ADB83570	ADB80676	ADB73217	ADB78299	ADB84947	ADB78053	ADB87119	ADB84701	ADB83816	ADB72971
Length DB	199 6	487 5	9 999	667 4	667 4	667 5	667 5	667 5	9 (99	9 /99	9 299	9 299	9 (29	9 (29	667 7	667 7	667 7	667 7	667 7	667 7	667 7	667 7	667 7	667 7	667 7
% Query Match	99.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	8.86	8.86	98.8	8.86	8.86	98.8	8.86	98.8	98.8	98.8	8.86	98.8	98.8	86.86	98.8
Score	1059	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048
Result No.	-	7	ורח	4	· ru	•	7	· cc	ď		-1	12	1.	14		16	17	18	9 -	20.	; ;	22		2.5	25

The present sequence represents the amino-terminal portion of a human protein, designated STRA6 (stimulated by retinoic acid). hSTRA6 (human STRA6) is modulated by Wnt-1 and plays a role in cellular transformation. The hSTRA6 nucleic acids and proteins are useful for treating tumours (e.g. colon and breast cancer, or melanoma), in gene therapy, in diagnostic applications where the presence or amount of the nucleic acid or protein is to be assessed, and in the generation of antibodies that

Human F	Human	Novel !	Novel 1	Novel 1	_	Novel 1	Novel	Add06262 Novel hum	Novel	Novel	Novel	Human	Human	Add51236 Novel hum	Novel	Ade20954 Novel hum	Human	Add75027 Human PRO	Vovo	NOVEL	
ADC36809	ADC21799	ADC49830	ADC49029	ADC49546	ADC47407	ADC47152	ADC78027	ADD06262	ADC77781	ADD50744	ADD50990	ADD50471	ADD50225	ADD51236	ADC48783	ADE20954	ADE05798	ADD75027		ADD75773	
7	7	7	7	7	7	٢	7	7	7	7	7	7	7	7	۵	00	60	æ	•	œ	
667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	, ,	667	
98.8	98.8	8.86	98.8	98.86	8.86	8.86	98.8	98.8	98.8	8.86	8.86	98.8	98.8	8.86	98.8	98.8	8.86	8 86		98.8	
1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048		1048	
26	27	8	600) C	3 6	3.5	3.0	34	35	36	3.7	38	0 6	0.4	41	42	4	44	r	45	

ALIGNMENTS

```
New human STRAG (stimulated by retinoic acid) proteins and nucleic acids encoding the proteins, useful for treating cancers (e.g. colon and breast cancer, or melanoma), or in gene therapy.
                                                                            Human; STRA6; retinoic acid; hSTRA6; Wnt-1; cellular transformation; tumour; colon cancer; breast cancer; melanoma; gene therapy.
                                                         Amino acid sequence of the amino-terminal of human STRA6.
                                                                                                                                                      /note= "unknown residue encoded by GNN"
                                                                                                                             Location/Qualifiers
31
                                                                                                                                                                                                                                                                                                                                                                                Claim 4; Page 9-10; 113pp; English.
ABB99462 standard; protein; 199 AA.
                                                                                                                                                                                                                                      23-MAR-2000; 2000US-0191532P.
                                                                                                                                                                                                                   23-MAR-2001; 2001WO-US009561
                                         (first entry)
                                                                                                                                                                                                                                                                                        Rastelli LK, Pennica D;
                                                                                                                                                                                                                                                          (CURA-) CURAGEN CORP. (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                            WPI; 2003-058366/05.
N-PSDB; ABV76852.
                                                                                                                                    Key
Misc-difference
                                                                                                                                                                           WO200277027-A1
                                                                                                               Homo sapiens.
                                        12-FEB-2003
                                                                                                                                                                                              03-OCT-2002.
                      ABB99462;
```

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention provides the protein and coding sequences of human retinoic acid responsive protein 53.57. The sequences can be used in the treatment of arrhythmia, bronchial asthma, peptic ulcer, diabetes, cancer and embryonic development disorders. The present sequence is the protein of the invention
bind immunospecifically to these sequences for therapeutic and diagnostic applications. MSTRA6 nucleic acid fragments may be used as hybridization probes to identify MSTRA6-encoding nucleic acids, or as PCR primers for amplification and/or mutation of MSTRA6 molecules
                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human retinoic acid responsive protein 53.57 and encoding polynucleotide, used in diagnosis and treatment of diseases e.g., arrhythmia, asthma, diabetes and cancer.
                                                                                                                                                                              9
                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; retinoic acid responsive protein 53.57; arrhythmia; bronchial asthma; peptic ulcer; diabetees; cancer; cytostatic; antiulcer; antiasthmatic; antidiabetic; endocrine; cardiant; embryonic development disorder; gene therapy.
                                                                                                                                                                                                                                                          61 LVLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDE
                                                                                                                                                                                                                                                                                                                          121 DALPFLILASAPSQDGKTEAPRGAWKILGLPHYAALYYPLAACATAGHTAAHLLGSTLSW
                                                                                                                                                                            1 MSQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSI
                                                                                                                                                                                                          1 MSQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSI
                                                                                                                                                                                                                                        LVLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDE
                                                                                                                                                                                                                                                                                                         DALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSW
                                                                                                                                              Gaps
                                                                                                                                              ;
0
                                                                                                               Length 199;
                                                                                                                                             Indels
                                                                                                               99.8%; Score 1059; DB 6; L
100.0%; Pred. No. 1.8e-107;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human retinoic acid responsive protein 53-57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEV INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 32-33; 37pp; Chinese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ą
                                                                                                                                                                                                                                                                                                                                                                                          AHLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                     AHLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAO17374 standard; protein; 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (SHAN-) SHANGHAI BIOWINDOW GENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-AUG-2001; 2001WO-CN001252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-AUG-2000; 2000CN-00119715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                               Query Match
Best Local Similarity 100.
Matches 199; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002-330093/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; AAL45968
                                                                                 Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200226808-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Xie Y;
                                                                               Sequence 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-APR-2002.
                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mao Y,
 8888888
                                                                                                                                                                            ð
                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                               q
```

Sequence 487 AA;

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; secreted and transmembrane protein; PRO; cardiant; cytostatic; antiangiogenic; hypotensive; vulnenry; antiarteriosclerotic; gene therapy; cardiovascular disorder; endothelial disorder; angiogenic disorder; cardiac hypertrophy; trauma; cancer; age-related macular degeneration; atherosclerosis; hypertension; atterial restenosis; rhematoid arthritis; angina; myorardial infarction; thrombophlebitis; lymphangitis; tumour angiogenesis; breast carcinoma; wound healing; chromosome mapping; gene mapping.
                                                                                                                                VLLLLLAMLVRRROLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121
                                                                                                                                                        VILILIAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 122
                                                                                                                                                                                                 ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                 The invention describes one hundred and eighty seven nucleic acids encoding novel human secreted and transmembrane (PRO) polypeptides. The PRO nucleic acids, polypeptides, agonists and antagonists are useful for treating or diagnosing a cardiovascular, endothelial or angiogenic disorder in a mammal, e.g. cardiac hypertrophy, trauma, cancer, agerelated macular degeneration, atherosclerosis, hypertension, arterial
                                                                                                  62
                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Goddard A, Godowski PJ;
ohan JF, Watanabe CK, Wood WI;
                                                                                                  SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                  SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                One hundred and eighty seven nucleic acids encoding PRO polypeptides, useful in diagnosis and treatment of cardiovascular (e.g. myocardial infarction), endothelial or angiogenic disorders in a mammal.
                                   ·,
                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel human secreted and transmembrane protein PRO10282.
Score 1048; DB 5;
Pred. No. 8.8e-106;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ME, Goddard
Stephan JF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gerritsen P
Smith V,
                                                                                                                                                                                                                                                                                                                                                                             ABU82087 standard; protein; 666 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 11; Fig 80; 314pp; English.
                                                                                                                                                                                                                                                                 HLGVQVWQRAECPQVPKI 199
 98.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-JUL-2000; 2000US-0220664P.
01-JUN-2001; 2001WO-US017800.
29-JUN-2001; 2001WO-US021066.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-APR-2002; 2002US-00119480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-AUG-2002; 2002US-00219003
                                                                                                                                                                                                                                                                                     183 HLGVQVWQRAECPQVPKI
                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
   Query Match
Best Local Similarity 99.0
Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Řť,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Desnoyers 1
C, Gurney 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-393229/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003088063-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Baker KP, De
Grimaldi JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                              26-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                             ABU82087;
                                                                                                   m
                                                                                                                                                                  63
                                                                                                                                                                                                 122
                                                                                                                                                                                                                                 123
                                                                                                                                                                                                                                                                 182
                                                                     N
                                                                                                                                    62
                                                                                                                                                                                                                                                                                                                                                              ABU82087
                                                                                                                                                                                                                                                                                                                                                RESULT
                                                                     ઠે
                                                                                                셤
                                                                                                                                  ò
                                                                                                                                                             a
                                                                                                                                                                                                 ò
                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                            셤
```

```
/label= Tra
                                                                                                                                      640. .646 /
/label= N 1
                                                474. .489
/label= Tr
                                                                 525. .531
/label= N_
                                 .451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 99.0
Matches 196; Conservative
       label=
                                         label=
                         note=
                                                                                                                                                                                                                                                                        (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                         Pennica D, Smith V,
                                                                                                                                                                                                                                                                                                          WPI; 2001-442146/47.
                                                                                                                                                                                                                                                                                                                  N-PSDB; AAS08630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ä
                                                                                                                                                                                  WO200151635-A2
                                                                                                                                                                                                                                                                                                                                                              gene mapping.
                                                                                                                                                                                                   19-JUL-2001
Domain
                Region
                                 Domain
                                                  Domain
                                                                   Region
                                                                                    Domain
                                                                                                     Region
                                                                                                                       Region
                                                                                                                                       Region
                                                                                                                                                         Region
ö
                                                                                                                                                121
                                                                                                                                                                  122
                                                                                                                                                                                   181
                                                                                                                                                                                             62
      thrombophlebitis, lymphangitis, tumour angiogenesis (such as breast carcinoma and liver carcinoma) and wound healing. The PRO nucleic acids have applications in molecular biology, including use as hybridisation probes, and in chromosome and gene mapping. This is the amino acid sequence of a novel human secreted and transmembrane PRO polypeptide
                                                                                                                                                VLILLAMIVRRRQIWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED
                                                                                                                                                           VILILIAMLVRRRQLWPDCVRGRPGIPSPVDFLAGDRPRAVPAAVFWVLLSSLCLILIPDED
                                                                                                                                                                                   ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA
                                                                                                                        2 SOPAGNOTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                   Human; Stra6; PRO10282; 15q23; tumour; breast cancer; head tumour; leukaemia; lymphoid malignancy; inflammatory disorder; immunogenic disorder; antigen; antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'note= "Region deleted in Stra6 variant PRO19578"
restenosis, rheumatoid arthritis, angina, myocardial infarctions
                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "ATP/GTP-binding site motif A (P-loop)'
                                                                           98.8%; Score 1048; DB 6; Length 666; 99.0%; Pred. No. 1.3e-105; ive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   102. 119
/label= Transmembrane_domain
132. 140
/note= "ATP/cm"

    12
    note= "Asn is N-glycosylated"

                                                                                                                                                                                                                                                                                                                                                                                                                                           'label = N_myristoylation_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N_myristoylation_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'label= N_myristoylation_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /label= N_myristoylation_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N_myristoylation_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                     54. .69 _____/label= Transmembrane_domain 89. .97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Transmembrane_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Transmembrane_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'label= Transmembrane_domain
                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                  AAU04557 standard; protein; 667 AA.
                                                                                                                                                                                                                                                                                                                                      Human Stra6 homologue, PRO10282.
                                                                                                                                                                                                                       HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                 .320
/label= T~
17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241. 247
/label= N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .76. .182
/label= N
                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .48. .166
/label= Tr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .347
                                                                                      Best Local Similarity 99.0
Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                    .56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         48.
                                                             Sequence 666 AA;
                                                                                                                                                                                                                                                                                                                                                                                                           Key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                     26-SEP-2001
                                                                                                                                                                                                                                                                                                    AAU04557;
                                                                                                                                                  62
                                                                                                                                                                                    122
                                                                                                                                                                                                     123
                                                                                                                                                                                                                       182
                                                                                                                                                                                                                                        183
                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Region
                                                                                                                                                                                                                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                  RESULT 4
                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                     셤
                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                      유
8888888888
                                                                                                                                                                                     ઠે
                                                                                                                                                  ò
```

```
The sequence is human PRO10282, a homologue of murine Stra6, a retinoic acid responsive protein thought to play an important role in early dorsoventral limb patterning during development and later in the control of endochondraal ossification. The gene for the Stra6 homologue is located on chromosome 15q23. The Stra6 polypeptides, agonists, antagonists or anti-Stra6 antibodies are useful for preparation of a medicament useful in the treatment of a condition which is responsive to the Stra6 or polypeptides, agonists, antagonists or anti-Stra6 antibodies. The Stra6 polypeptides may also be employed as molecular weight markers for protein colypeptides may also be employed as molecular weight markers for protein electrophoresis. The Stra6 nucleic acids have applications in molecular compounds may be used to treat various conditions, including those characterised by overexpression and/or activation of amplified genes. Exemplary conditions or disorders include benign or malignant tumours (e.g., renal, liver, cor disorders include benign or malignant colorectal, prostate, pancreatic, lung, vulval, thyroid, hepstic carcinomas, sarcomas, colorectal, macromas, and various head and neck tumours, leukaemias and lymphoid malignancies), neuronal, glial, astroomal and blastocoelic disorders, inflammatory, angiogenic and immunogenic disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                               "Prokaryotic membrane lipoprotein attachment site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human nucleic acid encoding a PRO10282 or PRO19578 polypeptide (the PRO polypeptides are referred to as Stra6 polypeptides), useful in molecular biology, including use as hybridization probes, and in chromosome and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98.8%; Score 1048; DB 4;
99.0%; Pred. No. 1.3e-105;
iive 1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                              /label= N_myristoylation_site 631. 637 | label= N_myristoylation_site /label= N_myristoylation_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             :l= N_myristoylation_site .667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /label= N_myristoylation_site
                                                                                                                                                                                                                                                                                                      N_myristoylation_site
                                                                                                                                               Transmembrane_domain
                                                                                                                                                                                                                           Transmembrane_domain
                                                                                                                                                                                                                                                                                                                                                                              Transmembrane_domain
Transmembrane domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 24; Fig 2; 159pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-JAN-2000; 2000US-0175849P.
14-APR-2000; 2000US-0197089P.
29-AUG-2000; 2000US-0228914P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11-JAN-2001; 2001WO-US000847
```

182

122

AAB88572;

AAB8857

62

ò ద ò g ò

```
(I). Activities of (I) may include cytokine and cell activities of (I) may include cytokine and cell activity, haematopoiesis regulating activity, tissue growth activity, activity, haematopoiesis regulating activity, tissue growth activity, activity, haematopoiesis regulating activity, haemostatic activity, not activity, receptoriligand activity and anti-inflammatory activity, I) and (II) can be used to treat autoimmune disorders e.g. multiple sclerosis, HIV infections, anaemia, burns, ulcers, osteoporosis, inflammatory bowel disease and tumours. (I) and (II) can also be used for wound healing, as nutritional sources or supplements e.g. as amino acid, carbon or nitrogen source, to effect metabolism, catabolism, anabolism, processing and utilisation of dietary fat, protein, catabolism, anabolism, thamina and minnarals, to effect behavioural characteristics, to affect appetite, and can act as antigens in vaccines to raise an immune response to the protein or another material cross-reactive with the protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 SOPAGNOTSPGATEDYSYGSWYIDEPOGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62 VLILLLAMIVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLLPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122 ALPFLTLASAPSODGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; secreted protein; PRO; tumour; lung cancer; colon cancer; breast cancer; prostate tumour; rectal tumour; liver tumour; pericyte cell proliferation; chondrocyte cell proliferation; tumour necrosis factor-alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                   Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
                                                                                                                                                                                                                                                                                                                                                                                     Score 1048; DB 4;
Pred. No. 1.3e-105;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU83631 standard; protein; 667 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human PRO protein, Seq ID No 80.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             182 HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0220607P.
2000US-0220624P.
2000US-0220638P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-JUL-2000; 2000WG-US020710.
01-AUG-2000; 2000US-0222425P.
22-AUG-2000; 2000US-027133P.
                                                                                                                                                                                                                                                                                                                                                                                     98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-0220585P.
2000US-0220605P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0220664P.
2000US-0220666P.
2000US-0220893P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-JUN-2001; 2001WO-US021066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           183 HLGVQVWQRAECPQVPKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                              Sequence 667 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200208288-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-JUL-2000; 25-JUL-2000; 25-JUL-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 196;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU83631;
                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 6
           Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAF94417 to AAF94516 encode the human proteins given in AAB88557 to AAB88666 (I) which have a hydrophobic domain. (I) have immunosuppressant, anti-HIV, neuroprotective, antianaemic, vulnerary, antiulcer, osteopathic, anti-inflammatory and cytostatic activities, and can be used in gene therapy. (I) can be used as pharmaceuticals and as antigens to prepare antibodies. DNA and cDNA (II) encoding (I) can be used as probes for genetic diagnosis and gene sources for gene therapy or for producing (I) in large quantities. Cells containing (II) are used for the detection of ligands or receptors corresponding to membrane or secretory proteins and to screen small molecule novel pharmaceuticals. Antibodies directed to (I) can be used for the detection, quantification and purification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; hydrophobic domain; immunosuppressant; anti-HIV; neuroprotective; antianaemic; vulnerary; antiulcer; osteopathic; anti-inflammatory; cytostatic; gene therapy; autoimmune disorder; multiple solerosis; HIV infection; anaemia; burn; ulcer; osteoporosis; tumour; wound healing; inflammatory bowel disease; nutritional supplement; appetite; vaccine; behavioural characteristic; immune response.
                                                                                                   121
                                                                                                                                                                                                                  62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human proteins with hydrophobic domains and the DNAs which encode them are useful for treating autoimmune disorders, burns and tumors and for screening novel pharmaceuticals.
                                                                                                                            SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                         SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                   VLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED
                                                                                                                                                                                        ALPFITLASAPSODGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human hydrophobic domain containing protein clone HP10713 #36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 288-291; 518pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                        ¥
                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB88572 standard; protein; 667
                                                                                                                                                                                                                                                                                                                         HLGVQVWQRAECPQVPKI 200
                                                                                                                                                                                                                                                                                HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99JP-00230344.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99JP-00281132.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SAGA ) SAGAMI CHEM RES CENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-AUG-2000; 2000WO-JP005356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99JP-00313877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROTEGENE INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-160059/16.
N-PSDB; AAF94442.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kato S, Kimura T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200112660-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-AUG-1999;
07-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-OCT-1999
```

Homo

(PROT-)

1

121 122 181

61 62

Gaps

```
Human; cancer; Stra6; PRO10282; cytostatic; stromal disorder; tumour; retinoid; Wnt; tumour antigen; leukaemia; lymphoid malignancy; neuronal disorder; glial disorder; astrocytal disorder; plant hypothalamic disorder; glandular disorder; macrophagal disorder; epithelial disorder; blastocoelic disorder; chromosome 15923.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'note= "lipoprotein lipid attachment site"
                                                                                                                                                                                                                                                                                                                                                                       "ATP/GTP binding site motif A"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "N-myristoylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "N-myristoylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "N-myristoylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "N-myristoylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'note= "N-myristoylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "N-myristoylation site"
                                                                                                                                                                                                                                                                           "N-myristoylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "Transmembrane domain"
317. .323
                                                                                                                                                                                                                                                                                                                                                                                                                                     "N-myristoylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Transmembrane domain"
                                                                                                                                                                                                                                                "N Glycosylation site"
                                                                                                                                                                                                                                                                                                            "Transmembrane domain"
                                                                                                                                                                                                                                                                                                                                                                                                        "Transmembrane domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Transmembrane domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'note= "Transmembrane domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'note= "Transmembrane domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Transmembrane domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "N-myristoylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "N-myristoylation
                                                                                                                                                                                                                                                                                                                                          /note= "Transmembrane
                                                                                                                                                                                                                location/Qualifiers
                                                             Human Stra6 (PRO10282) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-AUG-2000; 2000US-0228914P.
11-JAN-2001; 2001US-00759056.
10-JUL-2001; 2001US-00901812.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-JUL-2001; 2001WO-US021635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , 489
/note= "T-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          , .535
/note= "T"
$27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .633
                              (first entry)
                                                                                                                                                                                                                                                                                                                                                          .140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .667
                                                                                                                                                                                                                                                                                                                                                                                                                                                     . 222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         375
                                                                                                                                                                                                                                                                                             69.
                                                                                                                                                                                                                                                                . 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note=
                                                                                                                                                                                                                                                                                                               /note=
                                                                                                                                                                                                                                                                                                                                                                            note=
                                                                                                                                                                                                                                                                                                                                                                                                           'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                        'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note=
                                                                                                                                                                                                                                                  'note=
                                                                                                                                                                                                                                                                                'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200218608-A2
                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-MAR-2002.
                                18-JUN-2002
AAU78575
                                                                                                                                                                                                                    Key
Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Region
                                                                                                                                                                                                                                                                  Region
                                                                                                                                                                                                                                                                                                Domain
                                                                                                                                                                                                                                                                                                                             Domain
                                                                                                                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                                                                                                           Domain
                                                                                                                                                                                                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Region
   The invention relates to one hundred and twenty two nucleic acids encoding PRO polypeptides. The sequences of the 122 PRO polypucleotides encode human secreted proteins. The PRO nucleic acids, polypeptides, agonists and antagonists are useful for treating a PRO related disorder. The PRO polypeptides are useful for treating a PRO related disorder. The PRO polypeptides are useful for treating a PRO related tumour or liver tumour. The PRO polypeptides are useful for stimulating the proliferation of, or gene expression, in pericyte cells, for stimulating the proliferation of differentiation of chondrocyte cells, for stimulating the release of tumour necrosis factor-alpha from human blood, for stimulating the release of tumour necrosis factor-alpha from human blood, for stimulating or inhibiting the proliferation of normal human dermal fibroblast cells. The PRO polypeptide may also be used as molecular weight markers and for tissue typing. The PRO nucleic acids have applications in molecular biology, including use as hybridisation probes, and in chromosome and gene mapping. ANU83592-AAU83713 represent human PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            One hundred and twenty two nucleic acids encoding PRO polypeptides, useful for treating a PRO related disorder and for diagnosing tumors such as lung cancer, colon cancer, breast tumor, prostate tumor, rectal tumor or liver tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122 ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VILLILAMINTRROLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFWVLLSSLCLILPDED 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 SOPAGNOTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Goddard A, Godowski PJ;
shan JF, Watanabe CK, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63 VLLILAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAVFMVLLSSLCLLLPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1048; DB 5;
Pred. No. 1.3e-105;
1; Mismatches 1;
                                                                                                                                                                                                                                                   Gerritsen ME, Goddard
Smith V, Stephan JF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein sequences of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 11; Fig 80; 359pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HLGVQVWQRAECPQVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98.8%;
                                                                  2000WO-US032678.
2000US-00747259.
2000WO-US034956.
                                                                                                               28-FEB-2001; 2001WO-US006520.
01-MAR-2001; 2001WO-US006666.
22-MAR-2001; 2001US-00816744.
                    2000WO-US023328.
2000WO-US030873.
                                                                                                                                                          10-MAY-2001; 2001US-00854208
10-MAY-2001; 2001US-00854280
                                                   2000US-0253646P
                                                                                                                                                                                           25-MAY-2001; 2001WO-US017092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                        Baker KP, Desnoyers L,
Grimaldi JC, Gurney AL,
                                                                                                                                                                                                                        GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                    WPI; 2002-172001/22.
N-PSDB; ABK33575.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
nes 196; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 667 AA;
                                                28-NOV-2000;
01-DEC-2000;
20-DEC-2000;
20-DEC-2000;
                    24-AUG-2000;
```

Szeto W;

Pennica D, Polakis P,

Tice D,

AAU78575 standard; protein; 667 AA.

RESULT 7 AAU78575 ID AAU70 XX

m 62

쉽 ò

ð

Query Match

Best Loca Matches

123 182

ద

8

ઠ

셤

```
WO200270709-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This invention relates to a novel method for selective enhancement of the expression of a protein in a tumour cell characterised by aberrant White signalling by treating the tumour cell with a retinoid. The method is useful for enhancing the efficacy of treatment of cancers characterised by aberrant Which is selectively enhanced by retinoid treatment. The expression of which is selectively enhanced by retinoid treatment. The method is also useful in the early detection of tumours for early intervention. The tumour antigens are useful as targets for cancer therapy, since selective enhancement of their expression by retinoid ctreatment relative to normal cells improves the efficacy and therapeutic index of cancer therapeutics directed against these antigens. Antibodies binding to the tumour antigens may be administered for the treatment of various disorders or conditions, including those characterised by overexpression and/or activation of the tumour antigens, where such conditions or disorders include benign or malignant tumours; leukaemias and lymphoid malignancies, neuronal, glial, astrocytal, hypothalamic and other glandular, macrophagal, epithalal, stromal and blastcocelic disorders. The present sequence represents the human Stra6 protein (RRO10282) which is selectively upregulated by retinoid using the method of human chromosome 15q23
                                                                                                                                                                                                                   Selectively enhancing the expression of a protein in a tumor cell characterized by aberrant Wnt signaling, useful for enhancing the efficacy of treatment of cancers, comprises treating the tumor cell with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 1; Fig 2; 141pp; English
                                                   2002-292202/33
                                                                                                            N-PSDB; ABK47278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 667 AA;
```

2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL 0; Gaps Indels Score 1048; DB 5; Pred. No. 1.3e-105; 1; Mismatches 1; 98.8%; Query Match
Best Local Similarity 99.0
Matches 196; Conservative

ö

VILILIAMI.VRRRQILWPDCVRGRPGLPSPVDFLAGDRPRAVPAVFMVILSSLCLILIPDED 122 VLLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121 122 ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181 3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL 62 62 63 g ò ద ઠે

of the invention Sequence 667 AA;

> 182 HLGVQVWQRAECPQVPKI 199

유 à

AA019413

AAO19413 standard; protein; 667 AA. AA019413;

Human molecule for disease detection and treatment protein #16.

(first entry)

10-DEC-2002

Human; molecule for disease detection and treatment; MDDT; gene therapy; vytostatic; antiarterioscalerotic; hepatotropic; anti-HIV; antiallergic; antinflammatory; antiasthmatic; cerebroprotective; nootropic; neuroprotective; antiparkinsonian; cardiant; antianginal.

sapiens Ношо

```
The present invention relates to human proteins and coding sequences of molecules for disease detection and treatment MDDT. The sequences can be used in the treatment of diseases associated with the decreased expression or overexpression of MDDT, such as cell proliferative (cancer, atherosclerosis, hepatitis), autoimmune/inflammatory (e.g. AIDS, allergies, Addison's disease, asthma), developmental (dwarfism, renal tubular acidosis), neurological (e.g. stroke, Parkinson's disease, epilepsy) and cardiovascular (congestive heart failure, myocardial infarction, angina pectoris) disorders. The present sequence is a protein
                                                                                                                                                                                                                                                                                                                                                                                                  New human molecules for disease detection and treatment (MDDT), useful for diagnosing, treating and preventing diseases or conditions associated with the aberrant MDDT expression, e.g. cancer, AIDS, asthma, diabetes,
                                                                                                                                                                                                                                      Xu Y;
Lu DAM;
Tang YT;
Tang YT;
                                                                                                                                                                                                                                                   ghn MR, Yao MG, Walia NK, Elliot VS, Xu
Yue H, Ding L, Gietzen KJ, Ison CH, Iu
Ghandi AR, Thangavelu K, Sanjanwala MM,
Griffin JA, Swarnaker A, Azimzai Y, Sapp
Lee EA, Lu Y, Tran UK, Marquis JP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 148-150; 177pp; English.
                                                                                                                                         2001US-0274486P.
2001US-0274436P.
2001US-0334229P.
                                                                                                           2001US-0269618P.
2001US-0271118P.
                                                                                                                                                                                        2002US-0353284P
                                                            08-FEB-2002; 2002WO-US003709
                                                                                                                                                                                                                        (INCY-) INCYTE GENOMICS INC.
                                                                                                                                                                                                                                                                    Honchell CD, Yue H,
Hafalia AJA, Ghandi
Ramkumar J, Griffin
                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-713453/77.
                                                                                                                                                                                                                                                                                                                      Lee EA,
                                                                                                                                                                                                                                                        Baughn MR,
                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAL49942
                                                                                                                                         07-MAR-2001;
09-MAR-2001;
28-NOV-2001;
                                                                                                           15-FEB-2001;
23-FEB-2001;
                                                                                                                                                                                        01-FEB-2002;
                            12-SEP-2002
                                                                                                                                                                                                                                                                                                                          Burford N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      hepatitis.
                                                                                                                                                                                                                                                          Lal PG,
```

121 63 VILILIAMIVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 122 ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181 62 VLLLLLAMLVRRROLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL Gaps .; 0 1; Indels Length Score 1048; DB 5; Pred. No. 1.3e-105; 1; Mismatches 1; HLGVQVWQRAECPQVPKI 199 98.8%; HLGVQVWQRAECPQVPKI Matches 196; Conservative Local Similarity 62 122 182 Query Match 8 셤 ઠ g ò a à

ADA54816 standard; protein; 667 AA ADA54816; RESULT 9 ADA54816 5 X X X E

20-NOV-2003 (first entry)

```
The present invention relates to the isolation of novel human PRO polypeptides, and the polynucleotide sequences encoding them. The PRO polypeptides are secreted and transmembrane proteins. The PRO polypeptides and polynucleotides are useful for preparing a medicament useful in the diagnosis and treatment of tumours. Anti-PRO antibodies are useful in diagnostic assays for PRO, by detecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural sources. ABUS0739-ABUS0860 from recombinant cell culture or natural sources. ABUS0739-ABUS0860 data for this patent was obtained in electronic format directly from the
Human; PRO polypeptide; secreted and transmembrane protein; anti-PRO antibody; diagnostic assay; gene expression; tumour; cytostatic.
                                                                                                                                                                                                                                                                                                                    Gerritsen ME, Goddard A, Godowski PJ;
Smith V, Stephan JF, Watanabe CK, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOPAGNOTSPCATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFWVLLSSLCLLLPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA
                                                                                                                                                                                                                                                                                                                                                                                                                             One hundred and twenty two nucleic acids encoding PRO polypeptides, useful for the manufacture of a medicament for diagnosing or treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USPTO web site at segdata.uspto.gov/psipsDIDEntry.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1048; DB 6;
Pred. No. 1.3e-105;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ä.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 11; Fig 80; 314pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               182 HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98.84;
                                                                                                                                                                                                25-JUL-2000; 2000US-022063BP.
01-JUN-2001; 2001WO-US017800.
29-JUN-2001; 2001WO-US021066.
09-APR-2002; 2002US-00119480.
                                                                                                                                                              28-AUG-2002; 2002US-00230163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABO33744 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                          snoyers L,
Gurney AL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                        (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                             Desnoyers
                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-342045/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 196; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; ACA66880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 667 AA;
                                                                                            US2003036635-A1
                                                                                                                                                                                                                                                                                                                                            Grimaldi JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-SEP-2003
                                                           Homo sapiens
                                                                                                                               20-FEB-2003
                                                                                                                                                                                                                                                                                                                             ξ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABO33744;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                             Baker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            XXXXXX
       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Otsuki T, Wakamatsu A, Sato H, Ishii S;
Hio Y, Otsuka K, Nagai K, Irie R, Tamechika I;
Otsuka M, Nagahari K, Masuho Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diseases in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  62
                                                         Cytostatic; Anti-inflammatory; Osteopathic; Neuroprotective; Nootropic; Gene Therapy; human; secretory protein; membrane proteins; cancer; inflammatory disease; osteoporosis; neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOPAGNOTSPGATEDYSYGSWYIDEPOGGXELOPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             secretory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New polynucleotides encoding full-length polypeptides, e.g. secreto. and/or membrane proteins, useful for developing medicines for diseawhich the gene is involved, or as target molecules for gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to novel human secretory or membrane proteins (ADA54071) and their coding sequences (ADA52433-ADA54071). The coding sequences are useful in the gene therapy of diseases caused by abormalities of the proteins, e.g. cancer, inflammatory diseases, osteoporosis or neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1048; DB 6;
Pred. No. 1.3e-105;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 14; SEQ ID NO 2384; 205pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABU80778 standard; protein; 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                               (HELI-) HELIX RES INST.
(REAS-) RES ASSOC BIOTECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 99.0%;
Matches 196; Conservative
                                                                                                                                                                                                                                          21-MAR-2002; 2002EP-00006586
                                                                                                                                                                                                                                                                             2001JP-00328381
2002US-0350435P
                           Human protein, SEQ ID 2384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human PRO polypeptide #40
                                                                                                                                                                                                                                                                                                                                                                                   Sugiyama T,
                                                                                                                                                                                                                                                                                                                                                                                                     Yamamoto J, Isono Y,
Seki N, Yoshikawa T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-395539/38.
N-PSDB; ADA53177.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 667 AA;
                                                                                                                                      Homo sapiens
                                                                                                                                                                      EP1293569-A2
                                                                                                                                                                                                                                                                             14-SEP-2001;
                                                                                                                                                                                                                                                                                              24-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-JUN-2003
                                                                                                                                                                                                         19-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  182
                                                                                                                                                                                                                                                                                                                                                                                   Isogai T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABU80778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         62
```

ö

121

62

181 182

> RESULT 10 ABU80778 ID ABU8

g

ઠ

a

ò

ઠે 셤 ò 셤 Φ

```
The invention describes an isolated nucleic acid molecule comprising a sequence with at least 80% identity to: (a) a nucleotide encoding any of 122 PRO (secreted and transmembrane) polypeptides whose sequences are fully defined in the specification; or (b) any of 122 nucleotide sequences having e.g. 4834, 2504 or 1759 bp fully defined in the specification; or the full length coding sequence of any these 122 nucleotide sequences. The PRO polypeptides or polymucleotides are useful as pharmaceuticals, diagnostics, biosensors or bioreactors. These are cummour, breast tumour, prostate tumours (e.g. lung tumour, oclon tumour, breast tumour, prostate tumour, rectal tumour, or liver tumour) in a mammal, for stimulating the release of TNF-alpha from human blood, of set indiating the proliferation of pericyte cells, or for modulating colliferation of pericyte cells, or for modulating proliferation of pericyte cells, or for modulating command fibroplast proliferation. The PRO nucleic acid or polypeptide is also useful for treating tumours or various bone and/or cartilage disorders (e.g. sports injuries or arthritis), or wounds. The PRO polypeptides are useful in drug screening, particularly as targets for theirspeutic intervention in these diseases, and in the diagnostic for their properties and in the diagnostic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         determination of the presence of these diseases. The PRO polypeptides are also useful as molecular weight markers, or for chromosome identification. The PRO genes are useful as hybridisation probes, or for screening libraries of human cDNA, genomic DNA or mRNA. The PRO genes may also be used in gene therapy, particularly for replacing a defective gene. This is the amino acid sequence of a novel human secreted and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or
                                                               antiarthritic; osteopathic; gene therapy; TNF-Agonist-Alpha; chondrocyte stimulator; pericyte stimulator; fibroblast modulator; pharmaceutical; diagnostic; biosensor; bioreactor; tumnour; lung tumour; colon tumour; breast tumour; prostate tumour; rectal tumour; liver tumour; bone disorder; cartilage disorder; sports injury;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gerritsen ME, Goddard A, Godowski PJ;
Smith V, Stephan JF, Watanabe CK, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New genes, and its encoded secreted and transmembrane polypeptides, useful for stimulating Tumor Necrosis Factor alpha, or chondrocyte or pericyte proliferation, especially for treating lung tumors, arthritis
                                              secreted and transmembrane protein; PRO; cytostatic;
human secreted and transmembrane protein PRO10282.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 11; Fig 80; 314pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ransmembrane PRO polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUN-2001; 2001WO-US017800.
29-JUN-2001; 2001WO-US021066.
09-APR-2002; 2002US-00119480.
                                                                                                                                                                                                                                                                                                                                                                            12-AUG-2002; 2002US-00218631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 99.0
Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Desnoyers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-512315/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              wounds in a mammal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; ACD68632.
                                                                                                                                                                                    arthritis; wound
                                                                                                                                                                                                                                                                               US2003045687-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 667 AA;
                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Baker KP, De
Grimaldi JC,
                                                                                                                                                                                                                                                                                                                             06-MAR-2003
                                              Human:
Novel
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to a novel isolated mucleic acid encoding a fully defined PRO polypeptide. The molecules of the invention may be useful for stimulating proliferation or gene expression in periove calls or the release of TNF-alpha from human blood. Other possible uses include the stimulation or inhibition of fondrocyte proliferation or afferentiation, the stimulation of human dermal fibroblast cell a proliferation and the detection of the presence of a tumour within a mammal. Furthermore, the nucleic acid may be useful for the manufacture of a medicament for diagnosing or treating a tumour within a mammal or for measuring or detecting the expression of an associated gene, as well protein of the invention
                                                                           VLLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDBD 121
                      63 VLLILLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFWVLLSSLCLLLPDED 122
                                                          ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATACHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Goddard A, Godowski PJ;
phan JF, Watanabe CK, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New nucleic acid encoding for a PRO protein, useful for the manufacture of a medicament for diagnosing or treating tumors or for measuring or detecting expression of an associated gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                          PRO; proliferation; pericyte cell; TNF-alpha; blood; chondrocyte; differentiation; dermal fibroblast; tumour; gene therapy; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1048; DB 6;
Pred. No. 1.3e-105;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gerritsen ME, Goddard Smith V, Stephan JF,
                                                                                                                                                                                                                                   ABJ72267 standard; protein; 667 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 11; Fig 80; 315pp; English.
                                                                                                                                           HLGVQVWQRAECPQVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JUN-2001; 2001WO-US017800.
29-JUN-2001; 2001WO-US021066.
09-APR-2002; 2002US-00119480.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-AUG-2002; 2002US-00230414.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99.08;
                                                                                                                         HLGVQVWQRAECPQVPKI
                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 99.0
Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Desnoyers L,
                                                                                                                                                                                                                                                                                                                              Human PRO10282 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2003-521818/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; ABT44265.
                                                                                                                                                                                                                                                                                                                                                                                                                                         US2003050448-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 667 AA;
                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Grimaldi JC,
                                                                                                                                                                                                                                                                                               06-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-MAR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Baker KP,
                                                                                                                                                                                                                                                                  ABJ72267;
                                                            122
                                                                                                                                                        183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                         182
                                                                                                                                                                                                     RESULT 12
                                                                                                                                                                                                                       ABJ72267
                      셤
                                                          ઠ
                                                                                      g
                                                                                                                         à
                                                                                                                                                    g
                                                                                                                                                                                                                                      ò
```

ö

Gaps ö

Indels

Length 667;

Score 1048; DB 6; Pred. No. 1.3e-105; 1; Mismatches

98.8%;

61

SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASISIL 62

g ò

2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL

g

ઠ

요 8 셤

ò

```
122
                                                                                                                                                                                                                                                                                ABO34290;
                                        62
                                                                    63
                                                                                                                        123
                                                                                                                                                     182
                                                                                                                                                                                 183
                                                                                                                                                                                                                         RESULT 14
ABO34290
                                        ò
                                                              g
                                                                                         ò
                                                                                                                       요
                                                                                                                                                     ò
                                                                                                                                                                               셤
                                                                                 The invention relates to a novel isolated PRO protein encoding nucleic acid. The nucleic acid of the invention may be useful for preparing PRO polypeptides and anti-pRO antibodies for detecting the presence of a tumour in a mammal. Furthermore, the molecules of the invention may be useful for stimulating proliferation or gene expression in pericyte cells, the release of tumour necrosis factor (TNF)-alpha from human blood, the proliferation or differentiation of chondrocyte cells and for inhibiting the proliferation of normal human dermal fibroblast cells. Finally, the molecules may be utilised during gene therapy. The current sequence is that of the human PRO protein of the invention
                          3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gerritsen ME, Goddard A, Godowski PJ;
Smith V, Stephan JF, Watanabe CK, Wood WI;
                                                                                                                                                                                                                                                                                                                                                   PRO; blood; proliferation; pericyte cell; TNF alpha; chondrocyte; tumour necrosis factor; proliferation; differentiation; gene therapy; dermal fibroblast.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ៧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          οĘ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New PRO protein encoding nucleic acid, useful for preparing PRO polypeptides and anti-PRO antibodies for detecting the presence tumor in a mammal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1048; DB 6;
Pred. No. 1.3e-105;
1; Mismatches 1;
                                                                                                                                                                                                                                           ABJ72395 standard; protein; 667 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 11; Fig 80; 324pp; English.
                                                                                                                                            199
                                                                                                                                                                      183 HLGVQVWQRAECPQVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98.8%;
99.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUN-2001; 2001WO-US017800.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-AUG-2002; 2002US-00227884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-JUN-2001; 2001WO-US021066.
09-APR-2002; 2002US-00119480.
                                                                                                                                           182 HLGVQVWQRAECPQVPKI
                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baker KP, Desnoyers L,
Grimaldi JC, Gurney AL,
                                                                                                                                                                                                                                                                                                                             Human PRO10282 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-503301/47.
N-PSDB; ABT44548.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 667 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                          US2003027988-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                  06-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                  RESULT 13
```

```
The invention relates to an isolated nucleic acid encoding a PRO polypeptide. Nucleic acids that encode PRO can be used to generate either transgenic animals or knock-out animals useful in developing and screenling of therapeutically useful reagents. The nucleic acids may also be used in gene therapy for replacing defective gene, in chromosome can interest of the length PRO cDNA. The PRO polypeptides are useful for chondrocyte timulation, TNF-alpha stimulation, human dermal fibroblasts stimulation and for detecting the presence of tumour in an mammal. The PRO colypeptides are useful for chondrocyte and for detecting the presence of tumour in an mammal. The PRO colypeptides are useful is molecular markers for protein electrophoresis and the isolated nucleic acids may be used for recombinantly expressing those markers. The PRO antibodies are useful in diagnostic assays for protein affinity purification of PRO from recombinant cell culture or promatical sources. The present sequence represents the amino acid sequence of a human secreted/transmembrane PRO polypeptide
                                                                                                                                             121
                                                                               ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        aB
                                                     VILLILAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED
Human; chondrocyte stimulation; TNF-alpha stimulation; gene therapy;
human dermal fibroblast stimulation; tumour; tissue typing;
affinity purification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New transmembrane polypeptides and nucleic acids encoding the polypeptides, useful in gene therapy, in chromosome identification, chromosome markers, or in generating probes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Goddard A, Godowski PJ;
ohan JF, Watanabe CK, Wo
                                                                                                                                                                                                                                                                                                                                                                                                                                   Human secreted/transmembrane polypeptide PRO 10282.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gerritsen ME, Goddard
Smith V, Stephan JF,
                                                                                                                                                                                                                                                                                                                             Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 19; Fig 80; 315pp; English.
                                                                                                                                                                                                                                                                                                                             ABO34290 standard; protein; 667
                                                                                                                                                                                                    HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                  HLGVQVWQRAECPQVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUN-2001; 2001WO-US017800.
29-JUN-2001; 2001WO-US021066.
09-APR-2002; 2002US-00119480.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-AUG-2002; 2002US-00230338
                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Desnoyers L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-492274/46.
N-PSDB; ACD82215.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US2003044934-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Baker KP, De
Grimaldi JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                    19-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-MAR-2003.
```

Matches 196; Conservative

Similarity

ö

Gaps

ô

1; Indels

by information received from other cells and the immediate

```
: 91.4866 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   time
à
                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                    ö
                                                                                                                                VLILLIAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121
                                                                                                                                                                                   ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                            123 ALPFLTLASAPSQDGKTEAPRGAWKILGLFYYAALYYPLAACATAGHTAAHLLGSTLSWA 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cells
                                                                                                       62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This invention relates to one hundred and twenty two novel nucleic acids encoding human PRO membrane bound proteins or receptors. Extracellular proteins play important roles in the formation, differentiation and maintenance of multicellular organisms. The fate of many individual cells (for example proliferation, migration or differentiation) is typically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MI;
                                                                                             SQPAGNQTSPGATEDYSYGSWXIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASIL
                                                                                                                                                63 VLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED
                                                                            2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               One hundred and twenty two nucleic acids encoding PRO polypeptides, useful for the manufacture of a medicament for diagnosing or treating
                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                Human membrane bound receptor/protein PRO10282 amino acid sequence.
                                                    ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ME, Goddard A, Godowski F
Stephan JF, Watanabe CK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                      cell proliferation; cell migration; cell differentiation; mitogenic factor; survival factor; oytotoxic factor differentiation factor; neuropeptide; hormone; cell receptor; receptor-ligand interaction; cytostatic; chondrocyte; tumour.
                       Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                         membrane bound protein; membrane bound receptor;
                                                  Indels
                       Score 1048; DB 6;
Pred. No. 1.3e-105;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gerritsen N
Smith V,
                                                                                                                                                                                                                                                                                                                                ABJ72097 standard; protein; 667 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 11; Fig 80; 315pp; English.
                                                                                                                                                                                                                                                       HLGVQVWQRAECPQVPKI 200
                         98.8%;
99.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-FEB-2000; 2000WO-US005004.
02-MAR-2000; 2000WO-US005841.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUN-2001; 2001WO-US017800.
29-JUN-2001; 2001WO-US021066.
09-APR-2002; 2002US-00119480.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-AUG-2002; 2002US-00232224.
                                                                                                                                                                                                                                        HLGVQVWQRAECPQVPKI
                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                    Best Local Similarity 99.0
Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Desnoyers L,
C, Gurney AL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Baker KP, Desnoyers
Grimaldi JC, Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-522018/49.
N-PSDB; ABT43921.
Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US2003065147-A1.
Seguence 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                      16-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-APR-2003
                                                                                                                                62
                                                                                                                                                                                   122
                                                                                                                                                                                                                                                                                                                                                            ABJ72097;
                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                         RESULT 15
g
                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                       셤
                                                                                                                                                                                                         g
                                                                                                                                                                                   ò
                                                                                                                                                                                                                                       ò
```

```
contronment. The information is often transmitted by secreted provisionment. The information is often transmitted by secreted polypeptides (for example mitogenic factors, survival factors, cytotoxic factors, differentiation factors, neuropeptides and hormones) which are received and interpreted by diverse cell receptors or membrane bound proteins. These membrane bound proteins and receptors may be of use as plarmaceutical and diagnostic agents, such as in the blocking of receptor ligand interactions. The current invention provides the amino acid sequences of novel human membrane bound receptors and proteins, along with the cDNA sequences encoding them. The novel proteins of the invention may have cytostatic activities through the stimulation of chondrocytes. The nucleic activities through the stimulation of chondrocytes. The mucleic activities through the stimulation of manufacture of a medicament for diagnosing or treating a tumour in a mammal. In addition, they may be useful for measuring or detecting the captression of a tumour associated gene. The present sequence is the amino caid sequence of a human PRO protein of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          123 ALPFLTLASAPSQDGKTEAPRGAWKILGLFYYAALYYPLAACATAGHTAAHLLGSTLSWA 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63 VLLILAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 SOPAGNOTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASISIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VLLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        122 ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1048; DB 7; ]
Pred. No. 1.3e-105;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8, 2005, 13:36:11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HLGVQVWQRAECPQVPKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 99.0
Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Search completed: February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 667 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
```

```
Sequence 14931, A Sequence 5, Appli Sequence 10817, A Sequence 6607, Ap Sequence 22555, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 4, Appli
Sequence 4, Appli
Sequence 4, Appli
Sequence 30376, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4, Appli
25837, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       86, Appl
39, Appl
2, Appli
2, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 131, App
Sequence 133, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 21709, A
Sequence 2, Appli
                                                                                                                 February 8, 2005, 13:30:00; Search time 23.5458 Seconds (without alignments) 630.905 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 836
Sequence 836
                                                                                                                                                                                                                          1061
1 MSQPAGNQTSPGATEDYSYG......WAHLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence Sequence Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 8
Sequence 4
Sequence 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Issued Patents AA:*

... /cgn2_6/ptodatca/1/iaa/5A_COMB.pep:*
... /cgn2_6/ptodatca/1/iaa/5B_COMB.pep:*
... /cgn2_6/ptodatca/1/iaa/6A_COMB.pep:*
... /cgn2_6/ptodatca/1/iaa/6E_COMB.pep:*
... /cgn2_6/ptodatca/1/iaa/PcTUS_COMB.pep:*
... /cgn2_6/ptodatca/1/iaa/PcTUS_COMB.pep:*
... /cgn2_6/ptodatca/1/iaa/PcTUS_COMB.pep:*
... /cgn2_6/ptodatca/1/iaa/PcTUS_COMB.pep:*
GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-223-490-4
US-09-252-991A-30376
US-09-252-991A-19381
US-09-106-075A-86
PCT-US94-07297-39
US-08-396-479B-2
US-08-396-479B-2
US-09-417-197-131
US-09-417-197-133
US-09-902-540-14931
US-09-902-540-14931
US-09-902-540-14931
US-09-902-540-10817
US-09-903-555-9018-2555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-252-991A-21709
US-08-924-345-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-140-378A-2
US-09-340-378A-2
US-09-949-016-8366
US-09-949-016-8368
US-09-949-016-8368
US-08-445-640-4
US-08-447-314-4
US-08-447-314-4
                                                                                                                                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                    513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                 sw model
                                                                                                                                                                                                                                                                                        BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                               - protein search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                         US-09-816-653A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           78.5
78.5
78.5
78.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score
                                                                                                                                                                                                         Title:
Perfect score:
                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                 OM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Database :
                                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                                                    Searched:
```

10290, A	5, Appli	10474, A	7, Appli	9760, Ap	33066, A	23559, A	12047, A	29490, A	30973, A	424, App	2, Appli	3, Appli	 Appli 	 Appli 	5, Appli	5, Appli	5, Appli
Seguence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Seguence	Sequence	Sequence	Sequence	Seguence	Sequence	Sequence	Sequence
US-09-949-016-10290	US-08-785-241-5	US-09-902-540-10474	US-08-986-217-7	US-09-949-016-9760	US-09-252-991A-33066	US-09-252-991A-23559	US-09-902-540-12047	US-09-252-991A-29490	US-09-252-991A-30973	US-09-602-777A-424	US-09-482-180A-2	US-08-653-740-3	US-09-073-594-3	US-09-275-925-3	US-08-653-740-5	US-09-073-594-5	US-09-275-925-5
4	н	4	~	4	4	4	4	4	4	4	3	7	7	٣	-4	~	m
535	875	478	331	575	337	482	657	147	311	356	378	578	578	578	636	636	636
7.3	7.2	7.2	7.1	7.1	7.0	7.0	7.0	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
77.5	76.5	16	75	7.5	74.5		74.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5	73.5
28	59	30		10		3.0	35	36	37	38	6	40	17	. 4	. 4	4 4	45

ALIGNMENTS

RESULT 1 US-09-252-991A-21709

```
Sequence 21709, Application US/09252991A;
Sequence 21709, Application US/09252991A;
Patent No. 6551795
GENERAL INFORMATION:
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS;
TITLE OF INVENTION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 21709
LENGTH: 509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    126 LTLASA----PSQDGKTEAPRGAW-----KILGLFHYAALYYP----LAACATAGH 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              188 EPOPGGRIRAPGALPADHRGSVRPDFPP---HA--AGLS------NRRHGAWRSPA 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     77 ---PDC--VRGRPGLPSPVDF-----LAGDRPRAVPAAVFMVLLSSLCLLLPDEDALPF 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         233 GATAECRMLAGLPGGHGPLDHRPVAGPAGGGTARRAPRAA----GTLCRAVPRAAALSR 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26 EPQGGXELQPEGEVPSCH----TSIPPGLYHACLASLSILVLLLLAMLVRRRQLW----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                58; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
8.3%; Score 88; DB 4; Length 509;
Best Local Similarity 27.3%; Pred. No. 0.3;
Matches 51; Conservative 13; Mismatches 65; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2, Application US/08924345
Patent No. 6224978
GENERAL INFORMATION: APPLICANT: LEGASTELOIS Isabelle, Christine, Marie-Andree APPLICANT: LEGASTELOIS Isabelle, Christine, Marie-Andree
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT
; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-21709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   169 TAAHLLG 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            347 TOARTGG 353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 2
US-08-924-345-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

```
LOCATION: (616)..(905)
OTHER INFORMATION: tyrosine kinase domain
PRIOR FILING DATE: 1993-00-1-
PRIOR APPLICATION NUMBER: US 08/292,299
PRIOR FILING DATE: 1994-08-16
NUMBER OF SEQ ID NOS: 6
SOFTWARE: Patentin Ver: 2.1
SEQ ID NO 2
LENGTH: 913
                                                                                                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: TURN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 4
US-08-336-343A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          256 PAGPTASPAASPSRAFSA----AAPAAAQPAGDTPA-----RFRRQLASILVPLC 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     :|||||||||| : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2, Application US/09140378A
Patent No. 6627733
GENERAL INFORMATION:
APPLICANT: Johnson, Jeffrey D.
APPLICANT: Edman, Jeffrey C.
APPLICANT: The Regents of the University of California
TITLE OF INVENTION: Domain
FILE OF INVENTION: Domain
FILE REFERENCE: 023070-079010US
CURRENT FILING DATE: 1998-08-26
PRIOR APPLICATION NUMBER: US/09/140,378A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 PAGNOTSPGATEDYSYGSWYIDEPQGCXELQPEGEVPSCHTSIPPGLYHACLAS----LS 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60 ILVLLLLAM-----LVRRRQL------WPDCVRGRPGLPSPV 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels 47; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 380;
        APPLICANT: AUDONNET Jean-Christophe, Francis
APPLICANT: RIVIERE Michel, Emile, Albert
APPLICANT: RIVIERION: Muchants and vaccines of the Infectious
TITLE OF INVENTION: Bovine Rhinotracheitis virus
                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/NS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/924,345
FILING DATE: ... 4.24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match

8.1%; Score 85.5; DB 3;
Best Local Similarity 27.6%; Pred. No. 0.38;
Matches 37; Conservative 12; Mismatches 38;
                                                                                                                                                                    NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS: 7
ADDRESSEE: LARSON AND TAYLOR
STREET: 727 SOUTH TWENTY-THIRD STREET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AFFLICATION NUMBER: US/US/24,245
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/199,172
FILING DATE: 09-AUG-1994
APPLICATION NUMBER: FR 92 07930
FILING DATE: 26-UN-1992
ATTORNEY/AGENT INFORMATION:
NAME: SARRO, THOMAS P.
REGISTRAATION NUMBER: 19396
REFERENCE/DOCKET NUMBER: XI
TELECHNON: (703) 920-7200
TELECHNON: (703) 920-8428
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            91 DFLAGDRPRAVPAA 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | | ||:| | |
363 VAL-GSRPKAPPLA 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       : 380 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       / MOLECULE TYPE: protein US-08-924-345-2
                                                                                                                                                                                                                                                                                                 STREET: 727 SOU CITY: ARLINGTON STATE: VIRGINIA
                                                                                                                                                                                                                                                                                                                                                                                   VIRGINIA
                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-140-378A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
```

```
NAME/KEY: SITE
LOCATION: (19)...(24)
OTHER INFORMATION: uncertain point of signal peptide cleavage between amino acids 19.
OTHER INFORMATION: uncertain point of signal peptide cleavage between amino acids 19.
OTHER INFORMATION: (31)...(185)
OTHER INFORMATION: proline/glycine-rich portion of connecting region interrupted by NAME/KEY: SITE
LOCATION: (374)...(415)
OTHER INFORMATION: proline/glycine-rich portion of connecting region interrupted by NAME/KEY: TRANSMEM
LOCATION: (417)...(439)
OTHER INFORMATION: transmembrane domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: SITE
LOCATION: (466)..(601)
OTHER INFORMATION: proline/glycine-rich portion of connecting region interrupted by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCATION: (510)..(513)
OTHER INFORMATION: tight turn recognition motif for internalization in coated pits
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       310 NNSSPALGGTFPPAPWWPPGPPPTNFSSLELEPRGQQPVAKAEGSPTAILIGCLVAIILL 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  :||::|::: | | | 30 ILLIIALMLWRLHWRRLLSKAERRVLEBELTVHLSVPGDTILINNRPGPREPPPYQEPRP 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 2, Application US/08336343A

Sequence 2, Application US/08336343A

GENERAL No. 5677144

THEORYTICANT: Ullrich, Axel

APPLICANT: Alves, Frauke

TITLE OF INVENTION: CCK-2, A No. 5677144el Receptor Tyrosine Kinase

NUMBER OF SEQUENCE: 43

CORRESPONDENCE ADDRESS:

ADDRESSEE: Pennie & Edmonds

STREET: New York

CUTTY: New York

CONDUTER: New York

COMPTED: 10036-2711

COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62 VLLLLAMLV-----RRRQLWPD-----CVRGRPGLPSPVDFL--- 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7 NQTSPGATEDYSYGSWYIDEPQ----GGXELQPEGEVPSCHT-SIPPGLYHACLASLSIL
OTHER INFORMATION: discoidin domain receptor (DDR) tyrosine kinase MAMEJKAR: PEPTIDE LOCATION: (1)...(18) OTHER INFORMATION: signal peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94 AGDRPRAVPAVFAVLLSSLCLLLPDEDALPFLTLASAPSQDGKTEAPRGAW 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               490 RGNPPHSAPC----VPNGSALLLSNPAYRLLLATYARPPRGPG---PPTPAW 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 7.9%; Score 84; DB 4; Length 913; Best Local Similarity 22.7%; Pred. No. 1.9; Matches 39; Conservative 20; Mismatches 73; Indels
```

```
Sequence 8367, Application US/09949016

Sequence 8367, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:
TITLE OF INVENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES: THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES: THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES: THEREOF
TITLE OF INVENTION: WINDER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/231,768
PRIOR PILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FREESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Sequence 8369, Application US/09949016
| Sequence 8369, Application US/09949016
| Patent No. 6812339
| GENERAL INFORMATION:
| APPLICANT: VENTER, J. Craig et al. |
| APPLICANT: VENTER, J. Craig et al. |
| TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
| FILE REFERENCE: CLO01307 |
| CURRENT APPLICATION NUMBER: US/09/949,016 |
| PRIOR APPLICATION NUMBER: 60/241,755 |
| PRIOR FILING DATE: 2000-10-20 |
| PRIOR FILING DATE: 2000-10-03 |
| PRIOR FILING DATE: 2000-10-03 |
| PRIOR FILING DATE: 2000-09-08 |
| NUMBER OF SEQ ID NOS: 207012 |
| SOFFWARE: FREE SEQ FOR WINDOWN VERSION 4.0 |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            394 NNSSPALGGTFPPAPWWPPGPPTNFSSLELEPRGQOPVAKAEGSPTAILIGCLVAIILL 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   :||::|::: | | | : | | 454 LLLIIALMERLHWRRLLSKABRRVLEBELTVHLSVPGDTILINNRPGFREPPPYQEPRP 513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 62 VLILLAMLV------RRRQLWPD------CVRGRPGLPSPVDFL---- 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 NQTSPGATEDYSYGSWYIDEPQ----GGXELQPEGEVPSCHT-SIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94 AGDRPRAVPAAVFMVLLSSLCLLLPDEDALPFLTLASAPSQDGKTEAPRGAW 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               514 RGNPPHSAPC----VPNGSALLLSNPAYRLLLATYARPPRGPG----PPTPAW 558
                                                                              94 AGDRPRAVPAAVFMVLLSSLCLLLPDEDALPFLTLASAPSQDGKTEAPRGAW 145
                                                                                                                                 514 RGNPPHSAPC----VPNGSALLLSNPAYRLLLATYARPPRGPG----PPTPAW 558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 84; DB 4;
Pred. No. 1.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Pred. No. 1.9; 20; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 22.7%
Matches 39; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-949-016-8368
                                                                                                                                                                                                                              RESULT 6
US-09-949-016-8367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-949-016-8367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 8368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGIH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                       윤
                                                                                       ò
                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JUSTICE AND STATE OF STATE OF STATE OF SEQUENCE 8366, Application US/09949016

FREEDER NO. 6812339

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
FILE REFERENCE: CLOOL1307
CURRENT FILING DATE: 2000-04-14
PRIOR PILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-30
PRIOR FILING DATE: 2000-10-30
PRIOR FILING DATE: 2000-0-03
PRIOR FILING DATE: 2000-0-09
SHOR FILING DATE: 2000-0-09-08
NUMBER OF SEQ ID NOS: 207012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  394 NNSSPALGGTFPPAPWWPPGPPPTNFSSLELEPRGQOPVAKAEGSPTAILIGCLVAIILL 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        370 NNSSPALGGTFPPAPWWPPGPPFINFSSLELEPRGQQPVAKAEGSPTAILIGCLVAIILL 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 NQTSPGATEDYSYGSWYIDEPQ----GGXELQPEGEVPSCHT-SIPPGLYHACLASLSIL 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7 NQTSPGATEDYSYGSWYIDEPQ----GGXELQPEGEVPSCHT-SIPPGLYHACLASLSIL 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62 VLLLLAMLV------RRRQLWPD------CVRGRPGLPSPVDFL---- 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               62 VLILLLAMLV------RRRQLWPD------CVRGRPGLPSPVDFL----93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    40; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94 AGDRPRAVPAAVFWVLLSSLCLLLPDEDALPFLTLASAPSQDGKTEAPRGAW 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           190 RGNPPHSAPC----VPNGSALLLSNPAYRLLLATYARPPRGPG----PPTPAW 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4; Length 937;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 7.9%; Score 84; DB 1; Length 919; Best Local Similarity 22.7%; Pred. No. 1.9; Matches 39; Conservative 20; Mismatches 73; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 73; Indels
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/336,343A
FILING DATE: 08-NOV-1994
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
7.9%; Score 84; DB 4
Best Local Similarity 22.7%; Pred. No. 1.9;
Matches 39; Conservative 20; Mismatches
                                                                                                                                                                                                 NAME: Coruzzi, Laura A. REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 7683-065
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                            TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   : 919 amino acids amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , MOLECULE TYPE: protein US-08-336-343A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Human
US-09-949-016-8366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-949-016-8366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 8366
LENGTH: 937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH:
```

g

ò

g ઠે g

ઠે

ò 유 ò

```
| : | | : | | : | | : : | | : : | | : : | 370 NNSSPALGGTEPPAPWWPPGPPTNFSSLELEPRGQQPVAKPEGSPTAILIGCLVAIILL 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 39; Conserv
                                                                                                                                                                                                                                                RESULT 9
US-08-170-558-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-170-558-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                          ò
                                                                                                g
                                                                                                                                           ò
                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7;
                                                                                                                                                                                                                                 :||::|:::
| LLIIIALMLWRLHWRRLLSKAERRVLEBELTVHLSVPGDTILINNRPGPREPPPYQEPRP 513
                                                                                                                                                        394 NNSSPALGGTFPPAPWWPPGPPTNFSSLELEPRGQQPVAKABGSPTAILIGGLVAIILL 453
                                                                                                                      7 NQTSPGATEDYSYGSWYIDEPQ----GGXELQPEGEVPSCHT-SIPPGLYHACLASLSIL 61
                                                                                                                                                                                                          ---CVRGRPGLPSPVDFL---- 93
                                                                                 40; Gaps
                                                                                                                                                                                                                                                                                       94 AGDRPRAVPAAVFMVILSSLCILLPDEDALPFLTLASAPSQDGKTEAPRGAW 145
                                                                                                                                                                                                                                                                                                                              514 RGNPPHSAPC----VPNGSALLLSNPAYRLLLATYARPPRGPG----PPTPAW 558
                                      7.9%; Score 84; DB 4; Length 937; 22.7%; Pred. No. 1.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 1; Length 913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73; Indels
                                                                                 Indels
                                                                                 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Godowski, Paul J.
APPLICANT: Godowski, Melanie R.
APPLICANT: Mark, Melanie R.
APPLICANT: Scadden, David T.
APPLICANT: Baker, Kevin P.
APPLICANT: Baron, Will F.
TITLE OF INVENTION: Protein Tyrosine Kinases
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
                                                                                                                                                                                                          ---RRROLWPD------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: 18M PC compatible
COMPUTER: 18M PC compatible
SOFRATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Generical)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
7.8%; Score 83; DB 1
Best Local Similarity 22.7%; Pred. No. 2.4;
Matches 39; Conservative 20; Mismatches
                                                                               20; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: patin (General)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/445,640
FILING DATE: 22-MAY-1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/170558
FILING DATE: 20-DEC-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/157563
FILING DATE: 23-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Hasak, Janet E.
REGISTRATION NUMBER: 28,616
REFERENCE/DOCKET NUMBER: 854C2
                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 4, Application US/08445640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                       Local Similarity 22.78 tes 39; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      415/952-9881
                                                                                                                                                                                                        62 VLLLLAMLV----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
US-09-949-016-8368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE:
TELEFAX: 4
                                                                                                                                                                                                                                                                                                                                                                                                                US-08-445-640-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-445-640-4
                                        Query Match
                                                              Best Loc
Matches
                                                                                                                                                             셤
                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                          셤
```

7 NQTSPGATEDYSYGSWYIDEPQ----GGXELQPEGEVPSCH-TSIPPGLYHACLASLSIL 61

à

```
:||::|:::
430 ILLIIALMIWRLHWRRLLSKAERRVLEEELTVHLSVPGDTILINNRPGPREPPPYQEPRP 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  430 LLLIIALMENLHWRRLLSKAERRVLEBELTVHLSVPGDTILINNRPGPREPPPYQEPRP 489
62 VLLLLAMLV------RRRQLWPD-----CVRGRPGLPSPVDFL---- 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7 NOTSPGATEDYSYGSWYIDEPQ----GGXELQPEGEVPSCH-TSIPPGLYHACLASISIL
                                                                                             94 AGDRPRAVPAAVFMVLLSSLCLLLPDEDALPFLTLASAPSQDGKTEAPRGAW 145
                                                                                                                             94 AGDRPRAVPAAVFMVLLSSLCLLLLPDEDALPFLTLASAPSQDGKTEAPRGAW 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          490 RGNPPHSAPC----VPNGSALLLSNPAYRLLLATYARPPRGPG---PPTPAW 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7.8%; Score 83; DB 3; Length 913; 22.7%; Pred. No. 2.4; cive 20; Mismatches 73; Indels
                                                                                                                                                                                                                                                    Sequence 4, Application US/08170558
Patent No. 6001621
GENERAL INFORMATION:
APPLICANT: Goddweki, Paul J.
APPLICANT: Godden, David T.
APPLICANT: Scadden, David T.
APPLICANT: Baker, Kevin P.
APPLICANT: Baron, Will F.
TITLE OF INVENTION: Protein Tyrosine Kinases
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: 460 Point San Bruno Blvd CITY: South San Francisco STATE: California CUMRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: patin (Generation)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/170,558
FILING DATE: 20-DEC-1993
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/157563
FILING DATE: 23-NOV-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELERAX: 415/552.
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Hasak, Janet E.
REGISTRATION NUMBER: 28
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
```

```
Scadden, David T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : 913 amino acida
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 7.8%
Best Local Similarity 22.7%
Matches 39; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-223-490-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-445-461-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               :||::|:::
330 LLLIIALMEWRELHWRRLLSKAERRVLEEELTVHLSVPGDTILINNRPGPREPPPYQEPRP 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          370 NNSSPALGGTFPPAPWWPPGPPPTNFSSLELEPRĠQQPVAKPEGSPTAILIGCLVAIILL 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7 NOTSPGATEDYSYGSWYIDEPQ----GGXELQPEGEVPSCH-TSIPPGLYHACLASLSIL 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62 VLLLLAMLV------RRRQLWPD------CVRGRPGLPSPVDFL--- 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 7.8%; Score 83; DB 3; Length 913;
Best Local Similarity 22.7%; Pred. No. 2.4;
Matches 39; Conservative 20; Mismatches 73; Indels 40; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94 AGDRPRAVPAAVFMVLLSSLCLLLPDEDALPFLTLASAPSQDGKTEAPRGAW 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      490 RGNPPHSAPC----VPNGSALLLSNPAYRLLLATYARPPRGPG----PPTPAW 534
                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:

MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk COMPUTER: IEM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: patin (Genentech) CURRENT APPLICATION DATA: APPLICATION NUMBER: 08/170558 FILING DATE: 20-DEC-1993 PRIOR APPLICATION DATA: APPLICATION NUMBER: 08/157563 FILING DATE: 23-NOV-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                     APPLICANT: Scadden, David T.
APPLICANT: Baker, Kevin P.
APPLICANT: Baron, Will F.
TITLE OF INVENTION: Protein Tyrosine Kinases
CORRESPONDENCES: 35
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                            ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Hasak, Janet E.
REGISTRATION NUMBER: 28,616
REFERENCE/DOCKET NUMBER: 854C1D2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-1896
TELEFAX: 415/952-9881
                                                                                               Sequence 4, Application US/08447314
Patent No. 6087144
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 913 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-447-314-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
```

Sequence 4, Application US/08445461
Patent No. 6096527
GENERAL INFORMATION:
APPLICANT: Godowski, Paul J.
APPLICANT: Mark, Melanie R.

US-08-445-461-4

```
370 NNSSPALGGTFPPAPWWPPGPPPTNFSSLELEPRGQOPVAKPEGSPTAILIGCLVAIILL 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           :||::|::: | | | : | | : | | 430 LLIIJALMLWRLHWRRLLSKAERRVLEBELTVHLSVPGDTILINNRPGPREPPPYQEPRP 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7 NOTSPGATEDYSYGSWYIDEPQ----GGXELQPEGEVPSCH-TSIPPGLYHACLASLSIL 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----CVRGRPGLPSPVDFL---- 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                94 AGDRPRAVPAAVFMVLLSSLCLLLPDEDALPFLTLASAPSQDGKTEAPRGAW 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      490 RGNPPHSAPC----VPNGSALLLSNPAYRLLLATYARPPRGPG----PPTPAW 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7.8%; Score 83; DB 3; Length 913; 22.7%; Pred. No. 2.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4, Application US/09223490
; Sequence 4, Application US/09223490
; Patent NO. 6825324
; GENERAL INFORMATION:
    APPLICANT: Godowski, Paul J.
    APPLICANT: Mark, Melanie R.
; APPLICANT: Baker, Kevin P.
    APPLICANT: Baker, Kevin P.
; APPLICANT: Baker, Will F.
; TITLE OF INVENTION: Protein Tyrosine Kinases
; NUMBER OF SEQUENCES: 35
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Genentech, Inc.
                                                                                                                                                                                                                                                                                                ZUDNINT DAY
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/445,461
FILING DATE: 22-MAY-1995
CLASSIFICATION DATE: 20-MS-1995
PRIOR APPLICATION DATE: 30 PRIOR APPLICATION DATE: 30 PRIOR APPLICATION DATE: 31 PRIOR APPLICATION DATE: 20-DEC-1993
PRIOR APPLICATION DATE: 20-DEC-1993
FILING DATE: 23-NOY-1993
ATTORNEY/AGENT INFORMATION:
NAME: Hasak, Janet E.
REGISCHARTON NUMBER: 28,616
REFERENCEY/DOCKET NUMBER: 28,616
REFERENCEY/DOCKET NUMBER: 854C3
TELEPHONE: 415/252-1896
APPLICANT: Baker, Kevin P.
APPLICANT: Baron, Will F.
APPLICANT: Baron, Will F.
TITLE OF INVENTION: Protein Tyrosine Kinases
NUMBER OF SEQUENCES: 35
CORRESSED ADDRESS:
ADDRESSEB: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62 VLLLLAMLV------RRRQLWPD----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20; Mismatches
```

```
Sequence 19381, Application US/09252991A

Patent No. 6551795
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION:
AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION NUMBER: US/09/252,991A
CURRENT APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR PILING DATE: 1999-02-18
PRIOR PILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
PRIOR SEQ ID NOS: 33142
SEQ ID NO 19381
LENGTH: 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 86, Application US/09106075A

Patent No. 6316250

GENERAL INFORMATION:
APPLICANT: Hjelle MD, Brian
APPLICANT: Jenison, Steve
TITLE OF INVENTION: He HARDS Virus
TITLE OF INVENTION: the HARDS Virus
FILE REPERENCE: 10312-801, Hjelle et al. (210312.0009)
CURRENT APPLICATION NUMBER: US/09/106,075A
                                                                                                83 LHPERHOPDRHRRFPP--VRSORAERTIDGGHRPVRRPVRRTSLOLWPDREERGIRGKPO 140
                                                                                                                                                86 LPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDBDALP-----FLTLASAPSQDGKTE 139
                                                                                                                                                                                             141 -----LGGIQPAAGSA------LPRRQADHRQRRGLFL---SHPGQAGAPD 177
                                                                                                                                                                                                                                             140 AP------RGAWKILGLFHYAALYYPLAACA---TAGHTAAHLLGSTLSWAHLGVQV 187
                                                                                                                                                                                                                                                                                        178 VPHLPAGGEAGRYPHPPPGAFRPALRQPAADPAPGRASGAAAALLEGSRLPRHHLHRAA 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              226 PLGGGWLADLGGHP-----AVFATLAVLLASLAALVV---PAWPET---RPLL 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               268 AGTPEPATLAIFRRVLADRPLQTRALLVAVLNVLVFSFYAAGPFMVGDLPGLGFGWIGLA 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LASAPSQDG--KTEAPRGAWKI-----LGLFHYAALYYPLAACATAGHTAAHLLGST--- 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            328 IAIAGSLGALLNRRLPR-TWNSARRVRLGL------ALAAAGATAQTLLAAVGYA 375
                                                  33 LQPEGEVPSCHTSIPPGLYHACLASLSILVLLLLAMLVRRR---QLWPD----CVRGRPG 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -GLPSPVDF----LAGDRP----RAVPAAVFMVLLSSLC----LLLPDEDALPF----LT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POGGXELOPEGEVPSCHTSIPPGLYHACLASLSILVLLLLAMLVRRRQLWPDCVRGRP--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
     Gaps
  20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 57; Indels 61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 4; Length 463;
     Indels
10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
7.6%; Score 80.5; DB
Best Local Similarity 29.0%; Pred. No. 1.8;
Matches 54; Conservative 14; Mismatches
  8; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-19381
     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         178 --LSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         376 EGLYWA 381
                                                                                                                                                                                                                                                                                                                                           188 WQRA 191
                                                                                                                                                                                                                                                                                                                                                                                        238 GORS 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-252-991A-19381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 15
US-09-106-075A-86
  26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
  Matches
                                                                                        임
                                                                                                                                                ઠે
                                                                                                                                                                                           d
                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
APPLICANT: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS TITLE OF INVENTION: ABRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1999-02-18
PRIOR FILING DATE: 1999-02-18
PRIOR FILING DATE: 1999-07-27
NUMBER: US 60/094,190
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 30376
LENGTH: 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       370 NNSSPALGGTFPPAPWWPPGPPTNFSSLELEPRGQOPVAKPEGSPTAILIGCLVAIILL 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :||::|:::
130 LLLIALMLWRLHWRRLLSKARRVLEBELTVHLSVPGDTILINNRPGPREPPPYQEPRP 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7 NQTSPGATEDYSYGSWYIDEPQ----GGXELQPEGEVPSCH-TSIPPGLYHACLASLSIL 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62 VLLLLLAMLV------RRRQLWPD------93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94 AGDRPRAVPAAVFMVLLSSLCLLLPDEDALPFLTLASAPSQDGKTEAPRGAW 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     490 RGNPPHSAPC----VPNGSALLLSNPAYRLLLATYARPPRGPG---PPTPAW 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 4; Length 913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 81; DB 4; Length 429; Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73; Indels
                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
COFFWARE: parim (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/223,490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 7.8%; Score 83; DB 4 Best Local Similarity 22.7%; Pred. No. 2.4; Matches 39; Conservative 20; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 30376, Application US/09252991A Patent No. 6551795
: 460 Point San Bruno Blvd
South San Francisco
                                                                                                                                                                                                                                                                                   FILING DATE:
CLASSIFICATION
PRIOR APPLICATION
APPLICATION NUMBER:
AFLING DATE:
FILING DATE:
ATTORNEY/ACENT INFORMATION:
NAME: Hasak, Janet E.
REGISCRATION NUMBER: 88.616
REFERENCE/DOCKET NUMBER: 85.4C1
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE: 415/225-1896
TELEFAX: 415/952-9881
                                                California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-252-991A-30376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-252-991A-30376
                                                                                             94080
                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-223-490-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
```

Search completed: February 8, 2005, 13:42:10 Job time : 24.5458 secs

This Page Blank (uspto)

٠,

```
February 8, 2005, 13:32:20; Search time 66.4599 Seconds (without alignments) 975.246 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-816-653A-2
1061
1 MSQPAGNQTSPGATEDYSYG......wAHLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Published Applications AA:*

| cgn2 \( \frac{6}{7}\) prodata/USO7 PUBCOMB.ppp:*

| cgn2 \( \frac{6}{7}\) prodata/2/pubpaa/USO7 PUBCOMB.ppp:*

| cgn2 \( \frac{6}{7}\) prodata/2/pubpaa/USO7 BNW PUB.pep:*

| cgn2 \( \frac{6}{7}\) prodata/2/pubpaa/USO6 BNW PUB.pep:*

| cgn2 \( \frac{6}{7}\) prodata/2/pubpaa/USO7 BNW PUB.pep:*

| cgn2 \( \frac{6}{7}\) prodata/2/pubpaa/USO8 BUBCOMB.pep:*

| cgn2 \( \frac{6}{7}\) prodata/2/pubpaa/USO9 BUBCOMB.pep:*

| cgn2 \( \frac{6}{7}\) prodata/2/pubpaa/USO0 BUBCOMB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1373511 seqs, 325702437 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                   OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0 Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                                                    Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description		Sequence 2, Appli	Sequence 2, Appli	Sequence 2, Appli	Sequence 67, Appl	Sequence 80, Appl	•	Sequence 80, Appl	Sequence 80, Appl				
SUMMARIES	O.	US-09-816-653A-2	US-10-362-240-2	US-09-759-056-2	US-09-901-812-2	US-09-863-776-67	US-10-227-884-80	US-10-230-163-80	US-10-230-338-80	US-10-218-631-80	US-10-230-414-80	US-10-232-224-80	US-10-216-159A-80	US-10-218-849-80
	DB	10	16	σ	σ	10	14	14	14	14	14	14	14	14
	% Query Match Length DB	199	487	667	667	667	667	667	667	667	667	667	667	667
	% Query Match	99.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
	Score	1059	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048	1048
	Result No.		7	n	4	Ŋ	9	7	60	6	10	11	12	13

			÷
Appl Appl Appl Appl Appl Appl	APPI APPI APPI APPI APPI APPI	Appl Appl Appl Appl Appl Appl Appl Appl	Appl Appl Appl Appl Appl Appl
80,	000000000000000000000000000000000000000		80, 80, 80,
Sequence Sequence Sequence Sequence Sequence	Sequence Sequence Sequence Sequence Sequence Sequence Sequence	Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence	Sequence Sequence Sequence Sequence Sequence Sequence
		~	
10-227-873- 10-227-883- 10-219-076- 10-230-434- 10-219-003- 10-219-003-	10-219-464-8 10-219-466-8 10-219-491-8 10-230-260-8 10-232-231-8 10-232-233-8	10-218-956- 10-219-468- 10-219-536- 10-233-205- 10-219-072- 10-219-474- 10-219-524- 10-219-524- 10-219-524-	10-227-88 10-227-88 10-230-43 10-232-22 10-232-22 10-232-22
444444		4 4 4 4 4 4 4 4 4 4 4	4444444
667 667 667 667 667	667 667 667 667 667 667	667 667 667 667 667 667 667 667	667 667 667 667 667 667
	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		, o,
1048 1048 1048 1048 1048	1048 1048 1048 1048 1048 1048	1048 1048 1048 1048 1048 1048 1048	10048 10048 10048 10048 10048
115 116 118	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 C C C C C C C C C C C C C C C C C C C

ALIGNMENTS

RESULT 1 US-09-81 US-09-81 US-09-81 US-09-81 US-09-81 US-05-81 US-	RESULT 1 Sequence 2, Application US/09816653A Sequence 2, Application US/09816653A Publication No. US20030021788A1 GENERAL INFORMATION: APPLICANT: Restelli, Luca APPLICANT: Restelli, Luca APPLICANT: Pennica, Diane TITLE OF INVENTION: NOVEL HUMAN STRA6-LIKE PROTEIN AND NUCLEIC ACIDS ENCODING THE SA- FILE REFERENCE: 10716/57 CURRENT FILING DATE: 2001-03-23 PRIOR PELICATION NUMBER: 60/191,532 PRIOR FILING DATE: 2000-03-23 NUMBER OF SEQ ID NOS: 7 SEQ ID NO 2 SEQ ID NO 2
TYPE CRGA	LENGTH: 199 TYPE: PRT ORGANISM: Homo sapiens hSTRA6 amino terminal polypeptide fragment FRATHER:
, NAME ; LOCA ; OTHE US-09-81	NAME/KEY: MISC FEATURE ; LOCATION: (31) (31) ; OTHER INFORMATION: Xaa is any amino acid US-09-816-653A-2
Query Ma Best Loc Matches	Query Match Best Local Similarity 100.0%; Pred. No. 1.4e-96; Matches 199; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
දුරු පු	1 MSQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSI 60
ò	61 LVLLLLAMLVRRQLWPDCVRGRPGLFSPVDFLAGDRPRAVPANVLASSLCLLLLPDB 120
Ор	61 LVLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFNVLLSSLCLLLPDE 120

```
122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                  VLLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121
                                                                                                                                                                                                                                                                                                                                                                                                                   122 ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63 VILILIAMIVRRRQIMPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVILSSLCLLLPDED 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                         63 VLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAVFMVLLSSLCLLLPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                         3 SOPAGNOTSPGATEDYSYGSWYIDEPOGGEELOPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62 VLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAVFMVLLSSLCLLLPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA
                                                                                                                                                                                                                                                    SOPAGNOTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1048; DB 9; Length 667;
Pred. No. 7.3e-95;
1; Mismatches 1; Indels (
                                                                                                                                                                 Length 667;
                                                                                                                                                                                                           1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 2, Application US/09901812
| Batent No. US20020173461A1
| GENERAL INFORMATION:
| APPLICANT: Pennica, Diane
| APPLICANT: Polakis, Paul
| APPLICANT: Polakis, Paul
| APPLICANT: Polakis, Paul
| APPLICANT: Seto, Wayne
| TITLE OF INVENTION: UPRECULATION OF TUMOR ANTIGENS TO
| TITLE OF INVENTION: ENHANCE EFFICACY OF IMMUNOTHERAPY
| FILE REFERENCE: GENERI . 03AA
| CURRENT APPLICATION NUMBER: 06/228, 914
| PRIOR RILING DATE: 2000-07-10
| PRIOR FILING DATE: 2000-08-29
| PRIOR PELICATION NUMBER: 60/175, 849
| PRIOR PILING DATE: 2000-01-11
| PRIOR PILING DATE: 2000-01-13
| PRIOR PILING DATE: 2000-01-13
| PRIOR PILING DATE: 2000-01-13
| PRIOR PILING DATE: 2000-04-14
| NUMBER OF SEQ ID NOS: 28
| SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                 Score 1048; DB 9;
Pred. No. 7.3e-95;
1; Mismatches 1;
    5
Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   182 HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       183 HLGVQVWQRAECPQVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98.84;
                                                                                                                                                                     98.8%;
                                                                                                                                                                   Query Match
Best Local Similarity 99.09
Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                               TYPE: PRT; ORGANISM: Homo Sapiens
US-09-759-056-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: Homo sapiens
NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Sim:
Matches 196;
                                                              LENGTH: 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 4
US-09-901-812-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-901-812-2
                                                                                                                                                                                                                                                                                                                                    62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                   Sequence 2, Application US/10362240;
Sequence 2, Application US/10362240;
Publication No. US20040185442A1
GENERAL INFORMATION:
APPLICANT: MAO, Yumin
TITLE OF INVENTION: POLYNUCLEOTIDE - HUMAN RETINOIC ACID-RESPONSIVE PROTEIN 53.5;
TITLE OF INVENTION: POLYNUCLEOTIDE ENCODING THE SAME
TITLE OF INVENTION: POLYNUCLEOTIDE ENCODING THE SAME
FILE REFERENCE: 011241.52054US
CURRENT APPLICATION NUMBER: US/10/362,240
CURRENT APPLICATION NUMBER: PCT/CN01/01252
PRIOR APPLICATION NUMBER: 00119715.0
PRIOR APPLICATION NUMBER: 00119715.0
PRIOR PILING DATE: 2000-08-23
PRIOR PELLING DATE: 2000-08-23
NUMBER OF SEQ ID NOS: 9
SOFTWARE: Patentin version 3.1
SEQ ID NO S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                               121 DALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSW 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 63 VLLLLAMLVRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVFAVFWVLSSLCLLLPDED 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              122 ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62 VILLLIAMIVRRROLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Pennica, Diane
APPLICANT: Smith, Victoria
APPLICANT: Smith, Victoria
APPLICANT: Smith, Victoria
APPLICANT: Wood, William I.
TILE OF INVENTION: No. US20020156252Alel STRA6 Polypeptides
FILE REFERENCE: GENENT.2827A2
CURRENT APPLICATION NUMBER: US/09/759,056
CURRENT PILING DATE: 2001-01-11
PRIOR APPLICATION NUMBER: 60/197089
PRIOR FILING DATE: 2000-04-14
PRIOR FILING DATE: 2000-01-13
PRIOR FILING DATE: 2000-01-13
PRIOR FILING DATE: 2000-01-13
PRIOR FILING DATE: 2000-01-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 487;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1048; DB 16;
Pred. No. 5e-95;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 AHLGVQVWQRAECPQVPKI 199
                                                                                                                              183 HLGVQVWQRAECPQVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          182 HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 99.0%;
Matches 196; Conservative 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
                                                                                                                                                                                                       RESULT 2
US-10-362-240-2
                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
                                                         g
                                                                                                       ઠ
                                                                                                                                             원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
```

셤 ઠે

```
Hardware the control of the control 
                                                                                                                                                ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                    182 HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                       183 HLGVQVWQRAECPQVPKI 200
62
                                                                                                                   122
   ò
                                                  g
                                                                                                                   8
                                                                                                                                                                      d
                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Taupter, Raymond J
APPLICANT: Taupter, Raymond J
APPLICANT: Taupter, Raymond J
APPLICANT: Guidelit, Raymond J
APPLICANT: Guidelit, Raymond J
APPLICANT: Guidelit, Raymond J
TILLE OF INVERTION: 0. US2001149953A1e1 Proteins and Nucleic Acids Encoding Same
TILLE OF INVERTION: 0. US2001149953A1e1 Proteins and Nucleic Acids Encoding Same
CURRENT APPLICATION NUMBER: 09/540,763
PRIOR PELICANTON NUMBER: 09/540,763
PRIOR PELICANTON NUMBER: 60/206,688
PRIOR PELICANTON NUMBER: 60/206,682
PRIOR PAPLICATION NUMBER: 60/207,748
PRIOR PELICANTON NUMBER: 60/207,798
PRIOR PELICANTON NUMBER: 60/207,798
PRIOR PELICANTON NUMBER: 60/207,798
PRIOR PELICANTON NUMBER: 60/203,831
PRIOR PELICANTON NUMBER: 60/204,831
PRIOR PELICANTON NUMBER: 60/204,931
PRIOR PELICANTON NUMBER: 60/204,937
PRIOR PELICANTON NUMBER: 60/204,939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 SOPAGNOTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98.8%; Score 1048; DB 10; Length 667; 99.0%; Pred. No. 7.3e-95; ive 1; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                    APPLICANT: Spytek, Kimberly A
APPLICANT: Spytek, Kimberly A
APPLICANT: Majumder, Kumud
APPLICANT: Tchernev, Velizar T
APPLICANT: Mishra, Vishnu
APPLICANT: Padigaru, Muralidhara
APPLICANT: Spaderna, Steven K
APPLICANT: Shenoy, Suresh G
APPLICANT: Rastelli, Luca
                                                                                                                                                                                                              Sequence 67, Application US/09863776
Publication No. US20030198953A1
         182 HLGVQVWQRAECPQVPKI 199
                                           183 HLGVQVWQRAECPQVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Li, Li
Taupier, Raymond J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 99.0<sup>§</sup>
Matches 196; Conservative
```

ઠે 셤

NUMBER: 6 1988-06- 10988-06- 1098-06- 1098-06- 1098-06- 1098-06- 1098-06- 1098-06- 1098-06- 1098-06- 1098-06- 1098-06- 1098-06- 1098-06- 1098-06- 1098-06- 1098-06-	1998- 1998- 1998- 1998- 1998- 1998- 1998- 1998- 1998- NUMBER 1998- NUMBER 1998- NUMBER 1998- NUMBER 1998- NUMBER	NUMBER: 60/10084 1998-09-15 NUMBER: 60/10084 1998-09-18 NUMBER: 60/10091 1998-09-24 NUMBER: 60/10173 1998-09-24 NUMBER: 60/10173 1998-09-24 NUMBER: 60/10178 1998-09-24 NUMBER: 60/1019 1998-09-24 NUMBER: 60/1019 1998-09-24 NUMBER: 60/1019 1998-09-24 NUMBER: 60/1019 1998-10-29 NUMBER: 60/10617 1998-10-29 NUMBER: 60/10617 1998-10-29 NUMBER: 60/10617 1998-10-29 NUMBER: 60/10617 1998-10-28 NUMBER: 60/10690 1998-11-03 NUMBER: 60/10690 1998-11-03 NUMBER: 60/10690 1998-11-03 NUMBER: 60/10690 1998-11-03
PPLICATION LLING DATE: PPLICATION PPLICATION PPLICATION LLING DATE: PPLICATION ILING DATE:	MUTANIE MATONI	TLING DATE TELING DATE PELICATION PELICATION TILING DATE TILING DATE PELICATION TILING DATE TILING DA
PRIOR PRIOR	PRILOR PR	

PRIOR PILING DATE: 1998-11-17

PRIOR PILING DATE: 1998-11-18

PRIOR PILING DATE: 1998-11-18

PRIOR PILING DATE: 1998-11-18

PRIOR PILING DATE: 1998-11-18

PRIOR PILING DATE: 1998-12-15

PRIOR PILING DATE: 1998-12-22

PRIOR PILING DATE: 1998-12-23

PRIOR PILING DATE: 1998-12-23

PRIOR PILING DATE: 1998-12-23

PRIOR PILING DATE: 1998-12-23

PRIOR PILING DATE: 1999-10-12

PRIOR PILING DATE: 1999-01-12

PRIOR PILING DATE: 1999-01-13

PRIOR PILING DATE: 1999-01-13

PRIOR PILING DATE: 1999-01-13

PRIOR PILING DATE: 1999-01-14

PRIOR PILING DATE: 1999-01-14

PRIOR PILING DATE: 1999-01-16

Ouery Match 98.8%; Score 1048; DB 14; Length 667; Best Local Similarity 99.0%; Pred. No. 7.3e-95;

g

ò

ò

쉽

원 ð

```
R FILING DATE: 1998-09-11
R APPLICATION NUMBER: 60/100385
R FILING DATE: 1998-09-15
A PPLICATION NUMBER: 60/100390
R FILING DATE: 1998-09-15
R APPLICATION NUMBER: 60/100627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/099816
FILING DATE: 1998-09-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/100919
FILING DATE: 1998-09-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/101477
FILING DAIE: 1998-00-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-09-24
APPLICATION NUMBER: 60/101786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1998-09-25
APPLICATION NUMBER: 60/101916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 1998-09-24
APPLICATION NUMBER: 60/101922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/106248
FILING DATE: 1998-10-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-10-29
APPLICATION NUMBER: 60/106464
FILING DATE: 1998-10-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 1998-08-26
APPLICATION NUMBER: 60/098544
FILING DATE: 1998-08-31
APPLICATION NUMBER: 60/099596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 1998-09-16
APPLICATION NUMBER: 60/100848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/101738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1998-09-24
APPLICATION NUMBER: 60/101741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1998-08-17
APPLICATION NUMBER: 60/097986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1998-09-09
APPLICATION NUMBER: 60/099598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 1998-09-09
APPLICATION NUMBER: 60/099803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/099812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/100038
                                                                                                                                     APPLICATION NUMBER: 60/089905
FILING DATE: 1998-06-18
APPLICATION NUMBER: 60/090472
                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/091982
FILING DATE: 1998-07-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/099811
FILING DATE: 1998-09-10
                                 60/089532
                                                                                 APPLICATION NUMBER: 60/089538
FILING DATE: 1998-06-17
                                                                                                                                                                                                                             FILING DATE: 1998-06-24
APPLICATION NUMBER: 60/090557
FILING DATE: 1998-06-24
APPLICATION NUMBER: 60/090691
                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/090695
FILING DATE: 1998-06-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/095302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/095318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/095916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/096146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/096791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1998-10-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1998-09-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1998-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1998-08-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-08-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1998-08-10
                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 1998-06-25
   FILING DATE: 1998-05-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 1998-08-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 1998-09-
                                                         ILING DATE: 1998-06-1
PRIOR 
                                                                                                                                                                                                                 63 VLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 122
                                                                                                                                                                                                                                                                                                                              62 VLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121
                                                                                                                                                                                                                                                                                                   181
                                                                                                                         62
                                                                  SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J.
APPLICANT: Grimaldi, J. Christopher
APPLICANT: Gurney, Austin L.
APPLICANT: Smith, Victoria
APPLICANT: Smith, Victoria
APPLICANT: Stephan, Jean-Philippe F.
APPLICANT: Wood, William L.
APPLICANT: Wood, William L.
TITLE OF INVENTION: ACIDS ENCODING THE SAME
                                                                                                                                                                                                                                                                                                   122 ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA
                                                                                                 3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASILIL
            Gaps
               ö
               Indels
               1;
            1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: P3530P1C96
CURRENT APPLICATION NUMBER: US/10/230,163
CURRENT FILING DATE: 2002-08-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT AFFILING DATE: 2002-08-09
PRIOR APPLICATION NUMBER: 10/119,480
PRIOR PILING DATE: 2002-04-09
PRIOR PILING DATE: 2002-04-09
PRIOR PELING DATE: 1997-09-17
PRIOR FILING DATE: 1997-09-17
PRIOR FILING DATE: 1997-09-17
PRIOR FILING DATE: 1997-01-19
PRIOR PELING DATE: 1997-10-28
PRIOR PELING DATE: 1997-10-31
PRIOR PELING DATE: 1997-10-31
PRIOR PELING DATE: 1997-10-31
PRIOR PILING DATE: 1997-10-31
PRIOR PILING DATE: 1998-03-20
PRIOR PILING DATE: 1998-03-26
PRIOR PELING DATE: 1998-04-15
PRIOR PELING DATE: 1998-05-06
PRIOR PELING DATE: 1998-05-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 80, Application US/10230163 Publication No. US20030036635A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    183 HLGVQVWQRAECPQVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                            182 HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Desnoyers, Luc
Gerritsen, Mary
               Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Baker, Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
```

```
PRIOR PELICATION NUMBERS: 60/106905
PRIOR APPLICATION NUMBERS: 60/108101
PRIOR PELICATION NUMBERS: 60/108101
PRIOR PELICATION NUMBERS: 60/10819
PRIOR FILING DATE: 1998-11-17
PRIOR PELICATION NUMBERS: 60/10819
PRIOR PELING DATE: 1998-12-15
PRIOR PELING DATE: 1998-12-25
PRIOR PELING DATE: 1998-12-25
PRIOR PELING DATE: 1999-10-12
PRIOR PELING DATE: 1999-01-12
PRIOR PELING DATE: 1999-01-13
PRIOR P
```

APPLICANT: Stephan, Jean-Philippe F.
APPLICANT: Stephan, Jean-Philippe F.
APPLICANT: Watanabe, Colin L.
APPLICANT: Watanabe, Colin L.
APPLICANT: Watanabe, Colin L.
APPLICANT: Watanabe, Colin L.
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE OF INVENTION: ACIDS ENCODING THE SAME
CURRENT APPLICATION NUMBER: US/10/230,338
CURRENT FILING DATE: 2002-04-09
PRIOR APPLICATION NUMBER: 60/06213
PRIOR APPLICATION NUMBER: 60/062287
PRIOR PILING DATE: 1997-0-17
PRIOR PILING DATE: 1997-10-17
PRIOR PILING DATE: 1997-10-17
PRIOR PILING DATE: 1997-10-28
PRIOR PILING DATE: 1997-10-28
PRIOR PILING DATE: 1997-112-17
PRIOR PILING DATE: 1997-12-17
PRIOR PILING DATE: 1997-12-17
PRIOR PILING DATE: 1998-03-20
PRIOR PILING DATE: 1998-03-25
PRIOR PILING DATE: 1998-03-26
PRIOR PILING DATE: 1998-03-27
PRIOR PILING DATE: 1998-03-27
PRIOR PILING DATE: 1998-03-27
PRIOR PILING DATE: 1998-03-27
PRIOR PILING DATE: 1998-03-27 VLLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121 3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL 62 2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASISIL ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA Remaining Prior Application data removed - See File Wrapper or PALM. NUMBER OF SEQ ID NOS: 246 SEQ ID NO 80 LENGTH: 667 ; Length 667; Indels Score 1048; DB 14; Pred. No. 7.3e-95; 1; Mismatches 1; Godowski, Paul J. Grimaldi, J. Christopher Sequence 80, Application US/10230338 Publication No. US20030044934A1 GENERAL INFORMATION: PRIOR FILING DATE: 1999-12-07 PRIOR APPLICATION NUMBER: 60/169835 HLGVQVWQRAECPQVPKI 200 98.88; Gurney, Austin L. Smith, Victoria Query Match Best Local Similarity 99.0 Matches 196; Conservative Goddard, Audre ; TYPE: PRT ; ORGANISM: Homo Sapien US-10-230-338-80 62 122 182 APPLICANT: APPLICANT: ò 임 ò g d à g ò

셤

ઠે

셤

g

ò

g

ઠે

```
US-10-230-441+80

US-10-230-441+80

US-10-230-441+80

US-10-230-441+80

US-10-230-441-80

US-10-230-441-80

US-10-230-441-80

US-10-230-441-80

US-10-230-441-80

US-10-230-441-80

US-10-230-441-80

US-10-230-441-80

APPLICANT: Gerritsen, Mary
APPLICANT: Gerritsen, Mary
APPLICANT: Gerritsen, Marin L.
APPLICANT: Germaldi, J. Christopher
APPLICANT: Germaldi, J. Christopher
APPLICANT: Germaldi, J. Christopher
APPLICANT: Germaldi, J. Christopher
APPLICANT: Macanabe, Colin L.
APPLICANT: Watanabe, Colin L.
APPLICANT: 
                                                                                                                                                                                                                                                                      122 ALPFLTLASAPSODGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                           VILLLAMIVRRROLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121
                                                     3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 SOPAGNOTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                SOPAGNOTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98.8%; Score 1048; DB 14; Length 667; 99.0%; Pred. No. 7.3e-95; ive 1; Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    183 HLGVOVWORAECPOVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                              182 HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 99.0
Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
CORGANISM: Homo Sapien
US-10-230-414-80
                                                                                                                                                            62
                                                                                   요
                                                                                                                                                            ò
                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-214-51-80

US20030045687A1

SEQUENCE 60, Application US/10218631

Publication No. US20030045687A1

SEQUENCE US20030045687A1

APPLICANT: BARET, Kevin P.

APPLICANT: Gerriteen, Mary

APPLICANT: Grimaldi, J. Christopher

APPLICANT: Grimaldi, J. Christopher

APPLICANT: Matanabe, Colin L.

APPLICANT: Matanabe, Colin L.

APPLICANT: Watanabe, Colin L.

PRIOR APPLICANTON NUMBER: US/10/218, 480

PRIOR APPLICANTON NUMBER: GO/06387

PRIOR APPLICANTON NUMBER: GO/06387

PRIOR PLING DATE: 1997-10-11

PRIOR PLING DATE: 1997-10-17

PRIOR PLING DATE: 1997-10-17

PRIOR PLING DATE: 1997-12-17

PRIOR PLING DATE: 1997-12-17

PRIOR PLING DATE: 1998-03-25

PRIOR PLING DATE: 1998-03-26

PRIOR APPLICANTON NUMBER: GO/079284

PROBLE OF SEQ ID NOS: 246

LEWANTH: KG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                     ö
                                                                                                                                                                                                                                                         62 VLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121
                                                                                                                                                                                                                                                                                             122 ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                            2 SOPAGNOTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL 61
                                                                                                                                                                      3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPRGTTSIPPGLYHACLASLSIL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98.8%; Score 1048; DB 14; Length 667; 99.0%; Pred. No. 7.3e-95; tive 1; Mismatches 1; Indels 0;
Length 667;
                                                                  Indels
Score 1048; DB 14;
Pred. No. 7.3e-95;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                182 HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              183 HLGVQVWQRAECPQVPKI 200
         98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 99.0
Matches 196; Conservative
      Query Match
Best Local Similarity 99.0°
Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
CORGANISM: Homo Sapien
US-10-218-631-80
```

ö

```
ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGGSTLSWA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 SQPAGNOTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Watanabe, Colin L. APPLICANT: Watanabe, Colin L. TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME PISSAOPIC6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASISIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 14; Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1048; DB 14;
Pred. No. 7.3e-95;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE: P3.91PICO
CURRENT PEDLICATION NUMBER: US/10/216,159A
CURRENT PEDLICATION NUMBER: US/10/216,159A
CURRENT PEDLING DATE: 2002-08-09
PRIOR PILING DATE: 2002-04-09
PRIOR PILING DATE: 1097-09-17
PRIOR PELING DATE: 1997-09-17
PRIOR PELING DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/06287
PRIOR APPLICATION NUMBER: 60/06349
PRIOR PILING DATE: 1997-10-28
PRIOR APPLICATION NUMBER: 60/064103
PRIOR PILING DATE: 1997-10-31
PRIOR PILING DATE: 1997-12-17
PRIOR PELICATION NUMBER: 60/06973
PRIOR PILING DATE: 1998-03-20
PRIOR PILING DATE: 1998-03-25
PRIOR PILING DATE: 1998-03-25
PRIOR APPLICATION NUMBER: 60/079294
PRIOR FILING DATE: 1998-03-25
PRIOR APPLICATION NUMBER: 60/079294
PRIOR FILING DATE: 1998-03-25
PRIOR APPLICATION NUMBER: 60/079294
PRIOR FILING DATE: 1998-03-25
PRIOR PILING DATE: 1998-03-25
PRIOR FILING DATE: 1998-03-26
PRIOR FILING DATE: 1998-03-26
PRIOR FILING DATE: 1998-03-26
PRIOR FILING DATE: 1998-03-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Godowski, Paul'J.
Grimaldi, J. Christopher
Gurney, Austin L.
Smith, Victoria
Stephan, Jean-Philippe F.
Watanbe, Colin L.
                                                                                                                                                                                                                                                                                                                                   US-10-216-159A-80
; Sequence 80, Application US/10216159A
; Publication No. US20030069397A1
                                                                                                                                                                                    HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                 183 HLGVQVWQRAECPQVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Baker, Kevin P.
APPLICANT: Desnoyers, Luc
APPLICANT: Gerritsen, Mary
APPLICANT: Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match . 98.8
Best Local Similarity 99.0
Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Homo Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-216-159A-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 80
                                                                                  122
                                                                                                                                                                                    182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
APPLICANT:
                                                                               ò
                                                                                                                               g
                                                                                                                                                                                    ò
                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Gaddard, Audrey
APPLICANT: Garney, Austin L.
APPLICANT: Garney, Austin L.
APPLICANT: Smith, Victoria
APPLICANT: Smith, Victoria
APPLICANT: Smith, Victoria
APPLICANT: Macanabe, Colin L.
APPLICANT: Wacanabe, Colin L.
APPLICANT: WACANABE: 1097-1017
PRIOR PELING DATE: 1097-09-17
PRIOR PELING DATE: 1997-10-28
PRIOR PELING DATE: 1997-10-21
PRIOR PELING DATE: 1997-02-20
PRIOR PELING DATE: 1997-03-27
PRIOR PELING DATE: 1998-03-26
PRIOR PELING DATE: 1998-03-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                         123 ALPFLTLASAPSQDGKTEAPRGAWKILGLFYYAALYYPLAACATAGHTAAHLLGSTLSWA 182
                                                       62 VLLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121
                                                                                                                                                            122 ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62 VLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62
          62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL
       3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                            63 VLILITAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Remaining Prior Application data removed - See File Wrapper or PALM NUMBER OF SEQ ID NOS: 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98.8%; Score 1048; DB 14; 99.0%; Pred. No. 7.3e-95; ive 1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 80, Application US/10232224 Publication No. US20030065147A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                           182 HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                              183 HLGVOVWORAECPOVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Desnoyers, Luc
Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 99.0°
Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Baker, Kevin P. APPLICANT: Desnoyers, Luc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo Sapien
US-10-232-224-80
                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                           ò
                                                    à
                                                                                                    g
                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

```
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC ITTLE OF INVENTION: ACIDS ENCODING THE SAME
                                                                                         PILLE REPERENCE: P3530 PACUS
CURRENT FILLING DATE: 2002-08-26
PRICOR PELICATION NUMBER: US/10/227,873
CURRENT FILLING DATE: 2002-08-26
PRICOR PELICATION NUMBER: US/10/227,873
CURRENT FILLING DATE: 1997-09-17
PRICOR PILLING DATE: 1997-10-18
PRICOR PELICATION NUMBER: 60/06319
PRICOR APPLICATION NUMBER: 60/06319
PRICOR PELING DATE: 1997-10-28
PRICOR PELING DATE: 1997-10-28
PRICOR PELING DATE: 1997-10-31
PRICOR PILLING DATE: 1997-10-31
PRICOR PILLING DATE: 1998-03-26
PRICOR PILLING DATE: 1998-04-15
PRICOR PILLING DATE: 1998-06-15
PRICOR PILLING DATE: 1998-06-18
PRICOR PILLING DATE: 1998-06-18
PRICOR PILLING DATE: 1998-06-18
PRICOR APPLICATION NUMBER: 60/090591
PRICOR APPLICATION NUMBER: 60/0905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1998-08-31
APPLICATION NUMBER: 60/099596
FILING DATE: 1998-09-09
                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Gerifeen, Mary
APPLICANT: Goddard, Audrey
APPLICANT: Goddwaki, Paul i
APPLICANT: Godowski, Paul i
APPLICANT: Grimaldi, J. Christopher
APPLICANT: Grimaldi, J. Christopher
APPLICANT: Smith, Victoria
APPLICANT: Smith, Victoria
APPLICANT: Watanabe, Colin L.
APPLICANT: Watanabe, Colin L.
APPLICANT: Watanabe, Colin L.
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P330-P1C11
CURRENT APPLICATION NUMBER: US/10/218,849
CURRENT PILING DATE: 2002-08-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALPPLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 sopadnorspearedysycswyidepogeelopegevpschrsippelyhaclasisil 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Prior Application removed - See File Wrapper or Palm NUMBER OF SEQ ID NOS: 246
SEQ ID NO 80
LENGTH: 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 98.8%; Score 1048; DB 14;
Best Local Similarity 99.0%; Pred. No. 7.3e-95;
Matches 196; Conservative 1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Baker, Kevin P.
APPLICANT: Desnoyers, Iuc
APPLICANT: Gerritsen, Mary
APPLICANT: Goddard, Audrey
APPLICANT: Goddwski, Paul J.
APPLICANT: Grimaldi, J. Christopher
APPLICANT: Gurney, Austin L.
APPLICANT: Smith, Victoria
APPLICANT: Srath, Victoria
                                                                                                                                                                                                                                                                                    Sequence 80, Application US/10218849
Publication No. US20030073814A1
GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Desnoyers, Luc
APPLICANT: Gerritsen, Mary
APPLICANT: Goddard, Audrey
APPLICANT: Goddowski, Paul J.
APPLICANT: Grimaldi, J. Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 80, Application US/10227873
Publication No. US20030073816A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                183 HLGVQVWQRAECPQVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HLGVQVWQRAECPQVPKI 199
                                                                                                                                           183 HLGVQVWQRAECPQVPKI 200
                                                                                                       HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Homo Sapien
US-10-218-849-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-227-873-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 182
     122
                                                                                                          182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                     요
                                                                                                          ઠે
                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
RELIGIOR DATE: 1998-12-15

REPLICATION DATE: 1998-12-15

REPLICATION NUMBER: 60/113296

REPLICATION NUMBER: 60/113605

REPLICATION NUMBER: 60/113613

REPLICATION NUMBER: 60/113621

REPLICATION NUMBER: 60/113621

REPLICATION NUMBER: 60/113589

REPLICATION NUMBER: 60/11558

REPLICATION NUMBER: 60/11558

REPLICATION NUMBER: 60/11558

REPLICATION NUMBER: 60/11553

REPLICATION NUMBER: 60/115733

REPLICATION NUMBER: 60/115733

REPLICATION NUMBER: 60/115733

REPLICATION NUMBER: 60/115733
PRIOR APPLICATION NUMBER: 60/09999
PRIOR FILING DATE: 1998-09-09
PRIOR PILING DATE: 1998-09-10
PRIOR PILING DATE: 1998-09-11
PRIOR PILING DATE: 1998-09-11
PRIOR PILING DATE: 1998-09-12
PRIOR PILING DATE: 1998-09-15
PRIOR PILING DATE: 1998-09-15
PRIOR PILING DATE: 1998-09-15
PRIOR PILING DATE: 1998-09-16
PRIOR PILING DATE: 1998-09-18
PRIOR PILING DATE: 1998-09-24
PRIOR PILING DATE: 1998-11-07
PRIOR PILING DATE: 1998-11-17
PRIOR APPLICATION NUMBER: 60/11362
PRIOR PILING DATE: 1998-11-17
PRIOR PILING DATE: 1998-11-17
PRIOR PILING DATE: 1998-11-17
PRIOR PILING DATE: 1998-11-17
PRIOR PILING DATE: 1998-10-12
PRIOR PILING DATE: 1999-10-12
PRIOR PILING DATE: 1999-10-12
PRIOR PILING DATE: 1999-10-12
PRIOR PILING DATE: 1999-10-12
PRIOR PILING DATE: 1999-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RELIGIO DATE: 1998-09-25

RAPELICATION NUMBER: 60/101916

RELING DATE: 1998-09-24

RELING DATE: 1998-09-24

RELING DATE: 1998-09-24

RELING DATE: 1998-09-24

RELING DATE: 1998-10-28

RELING DATE: 1998-10-30

RELING DATE: 1998-11-3

RELING DATE: 1998-11-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AFFLING DATE: 1999-03-23
APPLICATION NUMBER: 60/126773
FILING DATE: 1999-03-29
APPLICATION NUMBER: 60/127887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1999-02-10
APPLICATION NUMBER: 60/123618
FILING DATE: 1999-03-10
APPLICATION NUMBER: 60/125259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1999-03-19
APPLICATION NUMBER: 60/125775
```

```
VILLILAMIVRRRQIMPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               63 VILILIAMIVRRRQLWPDCVRGRPGLPSPVDFLAGDRFRAVPAAVFWVLLSSLCLLLPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOPAGNOTESPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1048; DB 14
Pred. No. 7.3e-95;
1; Mismatches 1
PRIOR APPLICATION UNDBER: 60/130232
PRIOR FILING DATE: 1999-04-21
PRIOR PELING DATE: 1999-04-22
PRIOR FILING DATE: 1999-04-26
PRIOR PLING DATE: 1999-04-26
PRIOR PLING DATE: 1999-04-27
PRIOR APPLICATION NUMBER: 60/131291
PRIOR APPLICATION NUMBER: 60/13145
PRIOR PILING DATE: 1999-04-27
PRIOR PILING DATE: 1999-04-28
PRIOR PILING DATE: 1999-06-12
PRIOR PILING DATE: 1999-06-12
PRIOR APPLICATION NUMBER: 60/140650
PRIOR PILING DATE: 1999-06-22
PRIOR PAPLICATION NUMBER: 60/14059
PRIOR PLING DATE: 1999-06-23
PRIOR PAPLICATION NUMBER: 60/14698
PRIOR PAPLICATION NUMBER: 60/146963
PRIOR PAPLICATION NUMBER: 60/146369
PRIOR PAPLICATION NUMBER: 60/16418
PRIOR PILING DATE: 1999-08-17
PRIOR APPLICATION NUMBER: 60/16418
PRIOR PILING DATE: 1999-08-17
PRIOR PAPLICATION NUMBER: 60/164418
PRIOR PILING DATE: 1999-08-17
PRIOR APPLICATION NUMBER: 60/16445
PRIOR PILING DATE: 1999-08-17
PRIOR PAPLICATION NUMBER: 60/16445
PRIOR PILING DATE: 1999-08-17
PRIOR PAPLICATION NUMBER: 60/16445
PRIOR PAPLICATION NUMBER: 60/16445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 80, Application US/10227883; Publication No. US20030073817A1; GENERAL INFORMATION: APPLICANT: Baker, Kevin P. APPLICANT: Desnoyers, Luc APPLICANT: Gerritsen, Mary; APPLICANT: Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/169495
PRIOR FILING DATE: 1999-12-07
PRIOR APPLICATION NUMBER: 60/169835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HLGVQVWQRAECPQVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 99.0
Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 15
US-10-227-883-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

61 62 965660/09

60/098544

```
R FILING DATE: 1998-09-10
R APPLICATION NUMBER: 60/100038
R FILING DATE: 1998-09-11
R APPLICATION NUMBER: 60/100385
R FILING DATE: 1998-09-15
R APPLICATION NUMBER: 60/100390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/106178
FILING DATE: 1998-10-28
APPLICATION NUMBER: 60/106248
FILING DATE: 1998-10-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1998-10-30
APPLICATION NUMBER: 60/106905
FILING DATE: 1998-11-03
APPLICATION NUMBER: 60/108787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1998-11.17
APPLICATION NUMBER: 60/108849
FILING DATE: 1998-11-18
APPLICATION NUMBER: 60/112422
FILING DATE: 1998-12-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 1998-12-22
APPLICATION UNUARE: 60/113605
FILING DATE: 1998-12-23
APPLICATION NUMBER: 60/113621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1999-02-10
APPLICATION NUMBER: 60/123618
FILING DATE: 1999-03-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 1998-09-17
APPLICATION NUMBER: 60/101477
FILING DATE: 1998-09-23
APPLICATION NUMBER: 60/101738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AFFILING DATE: 1998-09-24
APPLICATION NUMBER: 60/101922
FILING DATE: 1998-09-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1998-12-23
APPLICATION NUMBER: 60/115558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1999-01-12
APPLICATION NUMBER: 60/115565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1999-01-12
APPLICATION NUMBER: 60/115733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/125259
FILING DATE: 1999-03-19
                                                                 FILING DATE: 1998-09-09
APPLICATION NUMBER: 60/099598
FILING DATE: 1998-09-09
                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/100848
FILING DATE: 1998-09-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1998-09-24
APPLICATION NUMBER: 60/101786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1998-09-25
APPLICATION NUMBER: 60/101916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 1998-11-17
APPLICATION NUMBER: 60/108801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/113296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/119549
                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1998-09-15
APPLICATION NUMBER: 60/100627
                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/100919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1998-09-24
APPLICATION NUMBER: 60/101741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/106464
                                                                                                                    APPLICATION NUMBER: 60/099803
FILING DATE: 1998-09-10
                                                                                                                                                                                        APPLICATION NUMBER: 60/099812
                                                                                                                                                                                                                         APPLICATION NUMBER: 60/099816
                                                                                                                                                    APPLICATION NUMBER: 60/099811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LING DATE: 1999-01-12
DATE: 1998-08-26
                                                                                                                                                                        FILING DATE: 1998-09-10
                                                                                                                                                                                                          FILING DATE: 1998-09-10
                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1998-09-16
                APPLICATION NUMBER: 60/
FILING DATE: 1998-08-31
                                                   APPLICATION NUMBER:
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR
PRIOR
PRIOR
                                                 APPLICANT: Sinth, Victoria
APPLICANT: Stephan, Jean-Philippe F.
APPLICANT: Stephan, Jean-Philippe F.
APPLICANT: Stephan, Jean-Philippe F.
APPLICANT: Watanabe, Colin L.
APPLICANT: Wood, William I.
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3530PIC/78
CURRENT APPLICATION NUMBER: U5/10/27,883
CURRENT FILING DATE: 2002-04-09
PRIOR APPLICATION NUMBER: 60/059113
PRIOR PILING DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/062287
PRIOR APPLICATION NUMBER: 60/063287
PRIOR RILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/063549
PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/063549
PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/063549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R APPLICATION NUMBER: 60/089905
R FILING DATE: 1998-06-18
R PILING DATE: 1998-06-24
R PILING DATE: 1998-06-24
R APPLICATION NUMBER: 60/090557
R FILING DATE: 1998-06-24
R APPLICATION NUMBER: 60/090691
R PILING DATE: 1998-06-25
   Godowski, Paul J.
Grimaldi, J. Christopher
Gurney, Austin L.
Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/090695
FILING DATE: 1998-06-25
APPLICATION NUMBER: 60/091982
FILING DATE: 1998-07-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 1998-04-22
APPLICATION UNDRER: 60/084411
FILING DATE: 1998-05-06
APPLICATION NUMBER: 60/085323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1998-05-15
APPLICATION NUMBER: 60/086392
FILING DATE: 1998-05-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/095302
FILING DATE: 1998-08-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1998-08-04
APPLICATION NUMBER: 60/095916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1998-05-13
APPLICATION NUMBER: 60/085579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 1998-05-22
APPLICATION NUMBER: 60/089532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/095318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/096146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/096791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 1998-08-17
APPLICATION NUMBER: 60/097986
                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/069873
FILING DATE: 1997-12-17
                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/078910
                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1998-03-20
APPLICATION NUMBER: 60/079294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PLICATION NUMBER: 60/079656
LING DATE: 1998-03-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PLICATION NUMBER: 60/079728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PLICATION NUMBER: 60/081819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/081955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LING DATE: 1998-04-15
PLICATION NUMBER: 60/082804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/089538
                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/064103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       998-08-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1998-08-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .998-08-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LING DATE: 1998-03-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LING DATE: 1998-04-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LING DATE: 1998-06-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LING DATE: 1998-03-27
                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1997-10-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .998-06-1
                                                                                                                                                                                                                                                                                   PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VILILIAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFWVLLSSLCLLLPDED 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 98.8%; Score 1048; DB 14; Length 667; Best Local Similarity 99.0%; Pred. No. 7.3e-95; Matches 196; Conservative 1; Mismatches 1; Indels 0.
PRIOR APPLICATION NUMBER: 60/125775
PRIOR FILING DATE: 1999-03-23
PRIOR FILING DATE: 1999-03-29
PRIOR PELING DATE: 1999-04-05
PRIOR PELING DATE: 1999-04-05
PRIOR PELING DATE: 1999-04-05
PRIOR PELING DATE: 1999-04-26
PRIOR APPLICATION NUMBER: 60/131022
PRIOR PELING DATE: 1999-04-26
PRIOR PELING DATE: 1999-04-26
PRIOR PELING DATE: 1999-04-26
PRIOR PELING DATE: 1999-04-26
PRIOR PELING DATE: 1999-04-27
PRIOR PELING DATE: 1999-04-28
PRIOR PELING DATE: 1999-04-27
PRIOR PELING DATE: 1999-04-28
PRIOR PELING DATE: 1999-06-22
PRIOR PELING DATE: 1999-07-26
PRIOR PELING DATE: 1999-07-26
PRIOR PELING DATE: 1999-07-26
PRIOR PELING DATE: 1999-08-17
PRIOR PELING DATE: 1999-10-08-17
PRIOR PELING DATE: 1999-10-09
PRIOR PELING DATE: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HLGVOVWORAECPOVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ᠬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

Search completed: February 8, 2005, 13:45:12 Job time : 67,4599 sec8

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

sw model OM protein - protein search, using February 8, 2005, 13:29:35; Search time 19.3683 Seconds (without alignments) 988.580 Million cell updates/sec Run on:

US-09-816-653A-2 1061

1 MSQPAGNQTSPGATEDYSYG.......WAHLGVQVWQRAECPQVPKI 199 score: Sequence: Title: Perfect

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283416 Total number of hits satisfying chosen parameters:

283416 segs, 96216763 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Description	beta-N-acetylhexos				ABC-	probable MFS trans	nucleocapsid prote	protein-tyrosine k	transcription fact	type IV prepilin p	ξ	virB6 homolog - Bo	tyrosine kinase re	probable MFS trans	epidermal growth f	polyketide synthas	farnesyl-diphospha	cytochrome c-type	thiamine transport	protein-tyrosine k	\rightarrow	hypothetical prote	hypothetical prote	ď	cyclin Bib-ll - ye	ŭ	c pi	1170_F2_64	crpl protein - mai
	ID			T36304		•		•	A49508	G02326	. S47153	S77715	C47301	A53137	H83588										_	_		2 T09498	S727	2 T01685
	ength DB		•			1172 2	385 2		876 2	921 2	249 1	577 2	463 2	910 2	477 2	532 2				521 2				109				211		668
* Query	Match Length	8.2	8.1	8.0	7.9		7.6	7.5	7.5	٠	7.5	•	•	7.4	7.4	7.4	7.4	7.4	7.3	7.3	7.2	7.2	7.2	7.2	7.1	7.1	7.1	7.1	7.1	7.1
	Score	86.5	85.5	84.5	84	83	80.5	80	80	80	79.5	79.5	79	79	78.5	78.5	78.5	78	77.5	77	76.5	96		9/	75.5		75.5	75	75	75
Result	No.		7	m	4	'n	9	7	80	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	29

hypothetical prote conserved hypothet	nypotnetical prote hypothetical prote class I cytokinase	probable pyruvate- hypothetical prote	hypothetical proce cyclin, Brtype c	probable protein A primosomal protein hypothetical prote	hypothetical prote hypothetical prote	hypothetical prote env polyprotein -
C87619 A82449	T47136 D83487 JW0047	AH0663 A83007	D72588 T03611	F84564 A83015 F70735	B83199 S75950	C70545 VCVWFS
00	0 0 0	~ ~	0 0	0 0 0	0 0	24
425 320	233 300 636	1174	411 473	633 739 786	176 258	529 636
7.0	o o o	9.9	6.0 6.0	0 0 0 0	9.9	6.8 8.8
74.5	73.5	73.5	73 73	73 73	72.5	72.5
30	8 8 8 8 8 8	35	37 38	39 40 10	4 4 2 5 6	444

ALIGNMENTS

RESITT 1

F87304
beta-N-acetylhexosaminidase, probable [imported] - Caulobacter crescentus
C;Species: Caulobacter crescentus
C;Date: 20-Apr-2001 #sequence_revision 20-Apr-2001 #text_change 09-Ju1-2004
C.Accesion: F87304
p. Nierman W.C.; Feldblyum, T.V.; Paulsen, I.T.; Nelson, K.E.; Eisen, J.; Heidelberg, J
Transmission M.L.; Haft, D.H.; Kolon
B.; Daud, M.I.; Deboy, N.I.; Society M. I. S
n. I.: Ermolaeva, M.: White, O.; Salzberg, S.L.; Shapiro, L.; Vencer, J.C.; Fidser, C.M.

Proc. Natl. Acad. Sci. U.S.A. 98, 4136-4141, 2010.
A.Title: Complete Genome Sequence of Caulobacter crescentus.
A.Reference number: A87249; MUID:21173698; PMID:11259647
A.Accession: F87304
A.Status: preliminary
A.Residues: 1-757 < STO>
A.Residues

-----RAVPA 103 Gaps 35; Length 757; 60; Indels Query Match

8.2%; Score 86.5; DB 2;
Best Local Similarity 30.6%; Pred. No. 3.7;
Matches 49; Conservative 16; Mismatches 60;

62 VLLLLAMLVRR-RQLWPDCVRGRPGLPSPVDFLAGDRP------

9

104 AVFMVLLSSLCLLLPDEDALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYY----P 159 ઠે 셤 ò

셤

160 LAACATAGHTAAHLLGSTLSWAHLGVQVWQRAECPQVPKI 199 176 à 셤

RESULT 2

Glycoprotein I - bovine herpesvirus 1
C; Species: bovine herpesvirus 1
C; Species: bovine herpesvirus 1
C; Date: 09-Jun-1994 #sequence_revision 12-May-1995 #text_change 09-Jul-2004
C; Date: 09-Jun-1994 #sequence_revision 12-May-1995 #text_change 09-Jul-2004
C; Accession: 35785
R; Audonnet, J.
submitted to the EMBL Data Library, June 1993
A; Reference number: S35785
A; Accession: 835785
A; Accession: 835785
A; Accession: BAA
A; Accession: DAA
A; Accession: DAA
A; Residues: 1-380 < AUD>
A; Accession: Bay CAABOCO (208102; EMBL: Z23068; NID: G312185; PIDN: CAA80605.1; PID: G312
C; Superfamily: pseudorabies virus glycoprotein gp63

~

7

Gaps

40;

429

g ò

엄

ò q

```
probable ABC-type transport protein cydCD - Streptomyces coelicolor
C;Species: O. 2. Dec. 1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
C;Accession: T36053
B;Saunders, D.C.; Harris, D.; Bentley, S.D.; Parkhill, J.; Barrell, B.G.; Rajandream, M. Submitted to the EMBL Data Library, November 1998
A;Reference number: Z21595
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Molecule type: DNA
A;Ressidues: 1-1172 < SAU>
A;Coss-references: UNIPROT: Q9ZBYS; EMBL: AL034355; PIDN: CAA22219.1; GSPDB: GN00070; SCOEI
A;Experimental source: strain A3(2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Gene: cydCD; SCOEDB:SCD78.14
C;Superfamily: Mycobacterium tuberculosis probable ABC transporter Rv0194; ATP-binding c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               probable MFS transporter PA1108 [imported] - Pseudomonas aeruginosa (strain PAO1)
C;Species: Pseudomonas aeruginosa
C;Species: Pseudomonas aeruginosa
C;Species: Pseudomonas aeruginosa
C;Species: Dseudomonas aeruginosa
C;Accession: E83506
R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; Br
adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim,
i Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
A;Title: Complete genome sequence of Pseudomonas aeruginosa PAO1, an opportunistic pathc
A;Title: Complete genome sequence of Pseudomonas aeruginosa PAO1, an opportunistic pathc
A;Teterence number: A82950; MUID: 20437337; PMID: 10984043
A;Refatus: preliminary
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-385 <STO>
A;Experimental source: strain PAO1
                                                                                                                                                                                                                                      :||::|:::
430 LLLIIALMLWRLHWRRLLSKAERRVLEEELTVHLSVPGDTILINNRPGPREPPPYQEPRP 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 115 LLLP--DEDALPFLTL-----ASAPSQDGKTEAPRGAWKILGLFHYAALYYPLA-- 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                933 ARHPGODRDALAGLDLTLEQGRRVAVVGPSGSGKTTL---AQVLLRFLDSAAGSYTLAGV 989
                                                                                                                      7 NOTSPGATEDYSYGSWYIDEPO----GGXELQPEGEVPSCHT-SIPPGLYHACLASISIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LASLSILVLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLC
                                                                                                                                                                                                   62 VLLLLAMLV-----RRRQLWPD-----CVRGRPGLPSPVDFL---
                                                                                                                                                                                                                                                                                                                94 AGDRPRAVPAAVFMVLLSSLCLLLPDEDALPFLTLASAPSQDGKTEAPRGAW 145
                                                                                                                                                                                                                                                                                                                                                   68; Indels 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1172;
                             Indels
                          73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 2;
12;
22.7%; Pred. No. 7.7; tive 20; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 7.8%; Score 83; DB:
Best Local Similarity 31.5%; Pred. No. 12;
Matches 45; Conservative 12; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   990 DAYALAGDDVRRLVGLCAQDAHL 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -ACATAGHTAAHLLGSTLSWAHL 183
Best Local Similarity 22.7%
Matches 39; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C, Genetics:
A, Gene: PA1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Genetics:
                                                                                     ð
                                                                                                                                    셤
                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      receptor tyrosine kinase - human
C;Species: Homo sapiens (man)
C;Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 09-Jul-2004
C;Accession: A48280
R;Johnson, J.D.; Edman, J.C.; Rutter, W.J.
Proc. Natl. Acad. Sci. U.S.A. 90, 5677-5681, 1993
A;Title: A receptor tyrosine kinase found in breast carcinoma cells has an extracellular A;Reference number: A48280
A;Accession: A48280
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-913 <RES>
A;Cross-references: UNIPROT:Q08345; GB:L11315; NID:g403386; PIDN:AAA02866.1; PID:g403387
C;Superfamily: unassigned Ser/Thr or Tyr-specific protein kinases; discoidin I amino-ter F;30-185/Domain: discoidin I amino-ter F;00-912/Domain: protein kinase homology <KIN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'n
                                                                                                                                                                                                                                                                                                                      :||||||:
303 VLVLLLLALCAATVNCALRRRLLPCSRRVYKPRTCAACGSGTCAGRPPCRGAAPSAPATV 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81 RGRPGLPSPVDFLAGDRPRAVPAVFMVLLSSLCLLLPDEDALPFLTLASAPSQDGKTEA 140
                                                                                                                                                                                                        ---GRGPARDVVLLN 283
                                                                                                                                                                     4 PAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLAS----LS 59
                                                                                                                                                                                                                                                                                     ----WPDCVRGRPGLPSPV 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141 PRGAWKILGLFHYAALYYPLAACATAGHTAAHLIGSTLSWAHLGVQVWQRAECPQVP 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    284 AAAALRVAGYAGTWSDGLRLAASAVDGGAAAGLLD---RWAHAS---WQRADLVEVP 334
                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gene: trpD2; SCOEDB:SCE8.05c
Superfamily: anthranilate phosphoribosyltransferase; trpD homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          / Match 8.0%; Score 84.5; DB 2; Length 335; Local Similarity 30.8%; Pred. No. 2.4; nes 36; Conservative 10; Mismatches 42; Indels 29
                                                     8.1%; Score 85.5; DB 2; Length 380; 27.6%; Pred. No. 2.2;
                                                                                                                Indels
                                                                                                             38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-185/Domain: discoidin I amino-terminal homology 608-912/Domain: protein kinase homology <KIN>616-624/Region: protein kinase ATP-binding motif
                                                                                                             12; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     247 RSRPG----DLAGGD--RAVNAAVLRRVLAG--
                                                                                                                                                                                                                                                                                  60 ILVLLLLAM-----LVRRRQL--
                                                                                                                                                                                                                                                                                                                                                                                                91 DFLAGDRPRAVPAA 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                     363 VAL-GSRPKAPPLA 375
                                                                            Best Local Similarity 27.69
Matches 37; Conservative
C, Keywords: glycoprotein
                                                        Query Match
```

Best Loca Matches

à 셤 ò a 7.9%; Score 84; DB 2; Length 913;

Query Match

ŝ

Gaps

```
20.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 23.5 tes 57; Conservative
                                                                                                                     42; Conservative
                                                                                                                                                                                                   62 VLLLLAMLV----
                                                                                                     Best Local Similarity
Matches 42; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QVW 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QIF 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                ò
                                                                                                                                                                        셤
                                                                                                                                                                                                   ò
                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cispecies: Homo sapiens (EC 2.7.1.112) trkE precursor - human Cispecies: Homo sapiens (man)
Cispecies: Homo sapiens (man)
Cispecies: 10-Nov-1995 #sequence revision 10-Nov-1995 #text_change 09-Jul-2004
CiAccession: A49508; 138358; 337402
CiAccession: A49508; 138358; 337402
CiAccession: A49508; 100-24295, 1993
A;Title: Molecular cloning of trkE, a novel trk-related putative tyrosine kinase receptching of trkE, procession: A49508; MulD:94043265; PMID:8226977
A;Reference number: A49508
A;Status: preliminary
A;Molecula type: mRNA
A;Nelecule type: mRNA
A;Residues: 1-876 <DIA>
                                                                                                                                                                                                                                                                                                                                         9
                          13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CVRG------RPGLPS-PVDFLAGDRPRAVPAAVFMVLLSSLCLL----LPDE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----AYLMNRQAVLDETHLPDI 285
                                                                      78
                                                                                                        -GLPSPVDF----LAGDRP---RAVPAAVFMVLLSSLC----LLLPDEDALPF----LT 127
                                                                                                                                   190 AGTPEPATLAIFRRVLADRPLQTRALLVAVLNVLVFSFYAAGPFMVGDLPGLGFGWIGLA 249
                                                                                                                                                              LASAPSODG--KTEAPRGAWKI----LGLFHYAALYYPLAACATAGHTAAHLLGST--- 177
                                                                                                                                                                                        250 IAIAGSLGALLNRRLPR-TWNSARRVRLGL------ALAAAGATAQTLLAAVGYA 297
                                                     84
                                                                                                                                                                                                                                                                                                                           Alternate names: nucleoprotein N
species: Prospect Hill virus
Date: 30-Jun-1991 #sequence_revision 30-Jun-1991 #text_change 09-Jul-2004
Accession: A34681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23 YIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSILVLLL----LAMLVRRRQLWPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27 POGGXELQPEGEVPSCHTSIPPGLYHACLASLSILVLLLLAMLVRRRQLWPDCVRGRP--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       34; Gaps
                            Gaps
                          61;
Length 385;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 433;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                          Indels
                                                                                                                                                                                                                                                                                                                nucleocapsid protein N - Prospect Hill virus (strain PHV-1)
                          57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        55;
  .;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 1;
  DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7.5%; Score 80; DB 1
24.1%; Pred. No. 8.4;
tive 21; Mismatches
                          14; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   235 KVKAFLDQKCPFLKAEPRÞGQÞAGEAEFLSSIR-
 7.6%; Score 80.5;
29.0%; Pred. No. 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DALPFLTLASAPSQDGKTEAPRGAW 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DALVELAASGDPTLPDSLENPHAAW 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity 24.1% nes 35, Conservative
              Similarity 29.0% S4; Conservative
                                                                                                                                                                                                                                               298 EGĽYWA 303
                                                                                                                                                                                                                     178 --LSWA 181
  Query Match
Best Local S
Matches 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                           85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                   셤
                                                                                                                                                                                         а
                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                             g
                                                        ઠે
                                                                                셤
                                                                                                           ઠે
                                                                                                                                                                ò
```

```
A;Cross-references: UNIPROT:Q08345; EMBL:X74979; NID:g400462; PIDN:CAA52915.1; PID:g4004 C;Superfamily: unassigned Ser/Thr or Tyr-specific protein kinases; discoidin I amino-ter C;Keywords: ATP; phosphotransferase; tyrosine-specific protein kinase P;30-185/Domain: discoidin I amino-terminal homology <DN1> P;571-875/Domain: protein kinase homology <KIN> P;571-875/Domain: protein kinase homology <KIN> P;579-587/Region: protein kinase ATP-binding motif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: UNIPROT:Q13469; EMBL:U43341; NID:g1353773; PIDN:AAC50886.1; PID:g13
C;Genetics:
A;Gene: NPAT1
                                                                                                                                                                                                                                                     ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ------KTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWAHLGV 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        414 VQPKPHHRAHYETBGSRGAVK------APTGGHPVVQLHG-YMENKPLGL 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98 PRAVPAAVFMVLLSSLCL-----LLPDEDALPFLTLASAPSQDGKTEAPRGAWKI 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Species: Homo sapiens (man)
C;Date: 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change 09-Jul-2004
C;Date: 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change 09-Jul-2004
C;Accession: G02326
B;Ederence number: H01056
B;A;Accession: G02326
B;A;Accession: G02326
B;Ederence rumber: preliminary; translated from GB/EMBL/DDBJ
B;Andlecule type: mRNAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 OPAGNOTSPGATEDYSYGSWYIDEPQGGX-----ELOPEGEV-PSCHTSIPPGLYHAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240 RPASRSSSPGAKRRHSCAEALVALPPGASPQRSRSPSPQPSSHVAPQDHGS-PAG--YPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 :||::|:::
430 ILLIIALMLWRLHWRRLLSKAERRVLEBELTVHLSVPGDTILINNRPGPRBPPPY-QEPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LASLSILVLLLLAMLVRR-----RQLW-----PDCVRGRP---GLP----SPVDFLA---
                                                                                                                                                                                                                                                                                                                                               7 NOTSPGATEDYSYGSWYIDEPQ----GGXELQPEGEVPSCHT-SIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -GDRPRAVPAAVFMVLLSSLCLLLPDEDALPFLTL---ASAP-----SQDG-
                                                                                                                                                                                                                                                     62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    type IV prepilin peptidase (EC 3.4.99.-) BfpP - Escherichia coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     489 PRGNPPH----SAPCVPNGSAYSGDYMEPEKPGAPLL---PPPPQN---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 921;
                                                                                                                                                                                              Length 876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               76; Indels
                                                                                                                                                                                                                                                     74;
                                                                                                                                                                                                 7.5%; Score 80; DB 2;
20.6%; Pred. No. 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7.5%; Scor.
23.5%; Pred. No. 10,
... 30; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                             ----RRRQLWPD----
                                                                                                                                                                                                                                                           26; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     transcription factor NFAT1 isoform B - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          528 -SVPHYAEADIVTLQGVTGGNTYA 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   148 LGLFHYAALYYPLAACATAGHTAA 171
```

```
Bordetella pertussis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            54; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Status: preliminary
A;Molecule type: nucleic acid
A;Residues: 1-463 <WEI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
Matches 25; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Accession: C47301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        virB6 homolog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     381
                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
N; Contains: type IV pilin N-methyltransferase (EC 2.1.1.-)
C; Species: Escherichia coli
C; Species: Escherichia coli
C; Species: Secherichia coli
C; Date: 10-Sep-1999 #text_change 09-Jul-2004
C; Accession: S47153; S70974
R; Zhang, H; Lory, S; Donnenberg, M.S.
Submitted to the ENBL Data Library, June 1994
A; Description: A plasmid encoded prepilin peptidase from enteropathogenic Escherichia col
A; Reference number: S47153
A; Molecule type: DNA
A; Residues: 1-249 cZHA
A; Reference number: S70966; MulD: 96310370; PMID: 8733231
A; Reference number: S70966; MulD: 96310370; PMID: 8733331
A; Reference number: S70966; MulD: 96310370; PMID: 8733331
A; Residues: 1-249 cSTO
A; Residues: Residues: Embi: Z68186; NID: 91122399; PIDN: CAA92334.1; PID: 91122408
A; Residues: 1-249 cSTO
A; Residues: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cytochrome c-type biogenesis protein homolog - evening primrose mitochondrion
C; Species: mitochondrion Oenothera villaricae (evening primrose)
C; Date: 06-58p-1996 Heaquence revision 09-May-1997 Htext_change 24-Sep-1999
C; Accession: S77715; S35238; S7730
R; Schuster, W.; Combettes, B.; Flieger, K.; Brennicke, A.
Mol. Gen. Genet. 239, 49-57, 1933
A; Title: A plant mitochondrial gene encodes a protein involved in cytochrome c biogenesi
A; Reference number: S35237; MUID:93288005; PMID:8389979
A; Residues 11-57 A SCGI)
A; Residues 11-57 A SCGI)
A; Residues 11-57 A SCGI)
A; Note: the source is designated as Oenothera berteriana
A; Note: the source is designated as Oenothera berteriana
A; Note: the source is designated as Oenothera berteriana
A; Note: the source is designated as Oenothera berteriana
A; Note: the source is designated as Oenothera berteriana
A; Note: the source is designated as Oenothera berteriana
A; Note: the source is designated as Oenothera berteriana
A; Note: the source is designated as Oenothera berteriana
A; Note: the source is designated as Oenothera berteriana
A; Note: the source is designated as Oenothera berteriana
A; Note: the source is designated as Oenothera berteriana
A; Note: the source is designated as Oenothera berteriana
A; Note: the source is designated of Oenothera berteriana
A; Note: the source is designated of Oenothera berteriana
A; Note: the source is designated of Oenothera berteriana
A; Note: the source is designated of Oenothera berteriana
A; Note: the Search of Oenothera berteriana
A; Note: the Oenothera berteriana
A; Note: th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60 ILVLLLLAMLVRRRQLWPDCVRG-----RPGLPSPVDFLAGDRPRAVPAAVFMVLLS 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            119 FLCLVFLALIDLRENWLPACVTYPLFWAGMITPGFASSDDKIFG----AFTGFLIMYISM 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60 WYYLIPVLGYFL-CRGECGYCHAKVPVRYPLTEFICGVCSVIIFVFLGDRLYDAVIVSLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        --- PGLYHACLASLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 249;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLCLLLPDEDALPFLTLASAPSQDGKTEAPRGAWKILGL 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KLVSALRKEDVFAGGDIALATA-----AGAW--LGI 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         submitted to the EMBL Data Library, February 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           / Match 7.5%; Score 79.5; D
Local Similarity 25.8%; Pred. No. 5.2;
nes 41; Conservative 11; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22 WYIDEPOGGXELOPEGEVPSCHISIP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Reference number: S77730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A, Accession: 877730
A, Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
```

```
A;Residues: 1-9,'P',11-12,'P',14-32,'P',34-45,'S',47,'R',49-50,'P',52-85,'R',87,'P',89-1,'P',237-238,'S',240-243,'P',245-246,'R',248-251,'R',253-258,'S',260-262,'P',264-267,'S',264-66,'R',468-480,'S',482-487,'L',489-577, SCW3
A;Cross-references: EMBL:X69555; NID:g14026; PIDN:CAA49287.1; PID:g14027
C;Genetics mitochondrion
C;Superfamily: mitochondrial cycK-related protein
C;Keywords: mitochondrion; RNA editing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: Bordetella pertussis
C;Date: 21-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 20-Sep-1999
C;Accession: C47301
R;Weiss, A.A.; Johnson, F.D.; Burns, D.L.
Proc. Natl. Acad. Sci. U.S.A. 90, 2970-2974, 1993
A;Title: Molecular characterization of an operon required for pertussis toxin secretion.
A;Reference number: A47301; MUID:93219406; PMID:8464913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ptk-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        neurons: isolation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AANDANPGSAVNWLLCAMIVAASAGGW-----LCLAASLLIVPGLIVTLLLSLGPL 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         271 FLVLLLFPALQRWTNAWLGALVRALVFWALGTPAVGLLSDVLAGALPAGLPQRFATDPLR 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Rattus norvegicus (Norway rat)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
C;Accession: A53137
R;Sanchez, M.P.; Tapley, P.; Saini, S.S.; He, B.; Pulido, D.; Barbacid, M.
Proc. Natl. Acad. Sci. U.S.A. 91, 1819-1823, 1994
A;Title: Multiple tyrosine protein kinases in rat hippocampal neurons: isola A;Reference number: A53137; MUID:94173920; PMID:8127887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    331 STMLAATLCATATLML----LTLVPLASSVNAGLRRRLWPNAAHPGLAQAHRQA----
                                                                                                                                                                                                                                                                                                                                                                                                                         13 ATEDYSYGSWYIDEPOGGXELQPEGEVPSCHTSIPPGLYHACLASLSILVLLLLAMLVRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5 AGNOTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTS---IPPGLYHACLASLS--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60 ILVLLLLAMLVRRRQLWPDCV-----RGRPGLPSPVDFLAGDRPRAVPAAV----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Note: sequence extracted from NCBI backbone (NCBIN:128775, NCBIP:128778)
C;Superfamily: Bordetella pertussis virB6 homolog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           62;
                                                                                                                                                                                                                                                                                                                                                               17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 577;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73 RQLWPDCVRG----RPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 463;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        71;
                                                                                                                                                                                                                                                                                                                                                               49;
                                                                                                                                                                                                                                                                                                 5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2;
                                                                                                                                                                                                                                                                                                 ΩB
                                                                                                                                                                                                                                                                                           7.5%; Score 79.5; D
22.9%; Pred. No. 13;
:ive 18; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7.4%; Score 79; DB 26.3%; Pred. No. 11; tive 18; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                106 FMVLLSSLC----LLLPDEDALPFLTLASA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----AARQYAPRPAAAAAAAAGPHQA 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LFHYAALYY---PLAACATAG-HTA 170
```

```
Search completed: February 8, 2005, 13:41:04 Job time : 21.8683 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Arithe: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic pathd A; Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic pathd A; Reference number: A82950; MUID:20437337; PMID:10984043
A; Accession: H83588
A; Astatus: prelimiary
A; Accession: H83588
A; Residues: 1-477 <STO>
A; Cross-references: UNIPROT:091660; GB:AE004483; GB:AE004091; NID:g9946313; PIDN:AAG0384
A; Astatus: Astatus: Strain PA01
C; Genetics: A; Coss-references: UNIPROT: Coss-references: Strain PA01
C; Genetics: A; Coss-references: Strain PA01
C; Genetics: A; Coss-references: Strain PA01
C; Superfamily: multidrug-efflux transporter
                                                         A, Residues: 1-ylu charter and the control of 3474; GB: Laborer, control of control control of control of control of control of control control of control co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Species: Pseudomonas aeruginosa
C;Species: L5-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
C;Accession: HB3588
R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; Bradman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim, J. Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
Molecule type: DNA
Residues: 1-910 <RES>
Cross-references: UNIPROT:Q63474; GB:L26525; NID:g432480; PIDN:AAA21089.1; PID:g432481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             obable MFS transporter PA0458 [imported] - Pseudomonas aeruginosa (strain PAO1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----LVLLLLAMLVRRRQLWPDCVR-GRPGLPSPVDFLAGDRPRAVPAAVFMV-LL 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      164 YASWHWIFLINLPVGLLGCLVAMKLMPDLRSPVPSRFDSIGFLLFGGSMVLISIALEGLG 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 224 ELHLSHLRVVLLLIGGLVLLTAYWLRALRIDKPLPP-----PSLFKARTFAVGIL 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SSLCLLLPDEDALPFLT-----LASAPSQDGKTEAPRG------AWKILGLFHYA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ::: : |: | |: || |: || |: || 373 SSDTFPPAPWPPGPPPTNFSSLELEPRGQQPVAKAEGSPTAILIGGLVAIILLLLIIA 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----RRRQLWPD------CVRGRPGLPSPVDFLAGDRPRAVPA 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    433 LMLWRLHWRRLLSKAERRVLEEELTVHLSVPGDTILINNRPGPREPPPY-QEPRPRGTPT 491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13 ATEDYSYGSWYIDEPQ----GGXELQPEGEVPSCHT-SIPPGLYHACLASLSILVLLLLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19 YGSWY----IDEPQG-----GXELQPE--GEVPSCHTSIPPGLYHACLASLSI-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                34; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 22.1%; Pred. No. 22;
Matches 36; Conservative 23; Mismatches 70; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    104 AVENVLISSLCLLLPDED-ALPFLTLASAPSQDGKTEAPRGAW 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           492 HSAPCVPNGSALLLSNPAYRLLLATYARPPRGPG---PPTPAW 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
7.4%; Score 78.5; DE
Best Local Similarity 26.5%; Pred. No. 13;
Matches 54; Conservative 16; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        155 ALYYPLAACATAGHTAAHLLGSTL 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----LVGNTL 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    333 KL---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

```
epidermal growth factor receptor-binding protein GRB-7 - human C;Species: Homo sapiens (man)
C;Date: 10-Jun-1997 #sequence_revision 18-Jul-1997 #text_change 09-Jul-2004
C;Accession: JG5412
R;Kishi, T; Sasaki, H.; Akiyama, N.; Ishizuka, T.; Sakamoto, H.; Aizawa, S.; Sugimura, Biochem. Biophys. Res. Commun. 222, 5-9, 1997
A;Title: Molecular cloning of human GRB-7 co-amplified with CAB1 and c-ERBB-2 in primary, A;Refeasion: JG5412
A;McGession: JG5412
A;McGession: JG5412
A;McGession: USB2 < KIS>
A;Residues: 1-532 < KIS>
A;Residues: 1-532 < KIS>
A;Cross-references: UNIPROT;Q14451; DDBJ:D43772; NID:g601880; PIDN:BAA07827.1; PID:g601C;Comment: This protein contains a pleckstrin domain which mediates protein-protein int
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    125 FLTLASAPSODGKTEAPRGAWKIL----GLFHYAALYYPLAAC----ATAGHTAAHLLGS 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 75 LWPDCVRGRPGLPSPVDF-LAGDRPRAVPAAVFMVLLSSLCLLLPDEDAL---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 532;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: GDB:1297554; OMIM:601522
F;231-336/Domain: pleckstrin #status predicted <PLE>F;432-532/Domain: SH2 #status predicted <SH2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ouery Match
7.4%; Score 78.5; Di
Best Local Similarity 28.3%; Pred. No. 14;
Matches 39; Conservative 12; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         131 LVQRAHALSDETWGLVEC 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             177 TLSWAH-LGVQVWQRAEC
```

^{This} Page Blank (USpto)

an troglod epithelia

oryza sativ rattus norv thermus the

bordetella

062ja8 077r43 0767a4 0062576 062576 07wmz6 07wmz6

sus scrofa

oryza sativ

lasaea sp. mus musculu bordetella

homo sapien chromobacte

streptomyce

Title: Perfect score:

Sequence:

protein

Run on:

Scoring table:

Searched:

Database

```
TISSUE-BRIAIN;

WEDLINE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Atlausner R.D., Collins F.S., Wagner L., Schemmen C.M., Schuler G.D.,

Atlschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

Atlschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Atapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Raha S.S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Atchards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Glübs R.A.,

Milting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Milting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Rock R.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

A respainski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,

A mensur M.A. And M.A.A.

Radinguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

A respainski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,

A mensur M.A. And M.A. And M.A.,

A mensur M.A. And M.A.A.,

A mensur M.A., Marra M.A.,

A mensur M. M. Marra M.A.,

A mensur M.A., Marra M.A.,

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  62 VILILAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVILSSLCILLPDED 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98.8%; Score 1048; DB 2; Length 667; 99.0%; Pred. No. 6.9e-88; ive 1; Mismatches 1; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Strausberg R.;
Strausberg R.;
Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; BC022556; AAH25256.1; -.
SEQUENCE 667 AA; 73532 MW; 120685F4635CB0E5 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                  667 AA
                                                                                                                                                                                                                                                      ALIGNMENTS
QGZJAB
DDR1_PANTR
DDR1_HUMAN
Q767M4
Q767M6
QGZ576
QGZ576
Q728N1
Q9728N1
Q9728N1
Q9728N1
Q9728N1
Q978N4
Q978N4
Q978N4
                                                                                                                                                                                                                                                                                                                                                                   Created)
                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                 01-OCT-2002 (TrEMBLrel. 22, Last ar
Stimulated by retinoic acid gene 6.
                                                                                                                                                                                                                                                                                                                                                                   01-JUN-2002 (TrEMBLrel. 21, 01-JUN-2002 (TrEMBLrel. 21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and mouse cDNA sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 99.0 Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
 295
909
913
917
1172
208
208
208
208
521
521
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SECUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=FLJ12541;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rissum=Brain;
 Query Match
                                                                                                                                                                                                                                                                                                                                                        Q8TB21;
                                                                                                                                                                                                                                                                                                                                     Q8TB21
                                                                                                                                                                                                                                                                                                        RESULT 1
Q8TB21
    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    encephalito
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ralstonia s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               oryza sativ
caulobacter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ralstonia s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  streptomyce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bovine herp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mus musculu
mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        homo sapien
mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        orachydanio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gloeobacter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     suid herpes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    chromobacte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oryza sativ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bovine herp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mycobacteri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 herp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mycobacteri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          bordetella
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bordetella
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     bordetella
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              bordetella
                                                                                                             February 8, 2005, 13:21:20 ; Search time 87.3473 Seconds
(without alignments)
1166.650 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bovine
                                                                                                                                                                                                             1 MSQPAGNQTSPGATEDYSYG......WAHLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q84sk5
Q84sk5
Q9aaz5
Q08102 )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                073ur0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q71991
Q8c442
Q6dgz6
Q7we26
Q7w325
Q6znr9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q7nik1
Q7w6g2
Q8sui0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09yq39
0854b3
07ntk1
0941d3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q6pj£8
070491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q8tb21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07z3u9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9bx78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q6dia8
                                                                                                                                                                                                                                                                                                                          1612378
                     GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                          1612378 seqs, 512079187 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q84SK5
Q9AAZ5
VGLI BHV1S
Q8Y1X8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q73UR0
TRD2 STRCO
O39505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YBK6 ENCCU
Q9YQ39
                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                  sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q854B3
Q7NTK1
Q94LD3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q93QX7
Q7WID3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q9BX79
Q7Z3U9
Q9BX78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q8C442
Q6DGZ6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q7W325
Q6ZNR9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q7NIK1
Q7W6G2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QBXRV5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276PF0
                                                                                                                                                                                                                                              BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QEPJF8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q6DIA8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q7WE26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              070491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               071.9G1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                  - protein search, using
                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                             US-09-816-653A-2
1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      263
750
435
318
336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99
96.5
90.5
90.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       89.5
88.5
87.5
87.5
87.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   86.5
85.5
85.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84.5
```

1048 1048 1048 986.5

Score

Result No.

697 697 488 427 337

ö

Gaps

. 0

```
183 HLGVQVWQRAECPQVPKI 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       [2]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                            ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                               62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    182
                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9BX78;
                                                                   Q7Z3U9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q9BX78
  유
                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               182
122 ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                        62 VLLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     122 ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALPFLTLASAPSQDGKTEAPRGAWKILGLFYYAALYYPLAACATAGHTAAHLLGSTLSWA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63 VLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAVFMVLLSSLCLLLPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: beiniformatics assessment."; Genome Res. 13:2265-2270(2003).

EMBL, AR352728, AR430289.; --
EMBL, AY350089; AAQ89447.1; --
SEQUENCE 667 AA; 73502 MW; D20840A46998BA2E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                       "Overexpression of the retinoic acid-responsive gene Stra6 in human cancers and its synergistic induction by Wnt-1 and retinoic acid."; Cancer Res. 0:0-0(2001).
                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
Szetc W., Jiang W., Tice D.A., Rubinfeld B., Hollingshead P.G.,
Fong S.E., Dugger D.L., Pham T., Yansura D.G., Wong T.A.,
Grimaldi J.C., Corpuz R.T., Singh J.S., Frantz G.D., Devaux B.,
Crowley C.W., Schwall R.H., Eberhard D.A., Rastelli L., Polakis P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=22887296; PubMed=12975309; DOI=10.1101/gr.1293003; Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D., Brush J., Chem J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd B. Eaton D., Foster J., Grimadic C., Gu Q., Hass P.E., Heldens S., Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee J., Lewis L., Liao D., Mark M., Robbie E., Sanchez C., Schoenfeld J., Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vages A., Vandlen R., Watanabe C., Wieand D., Woods K., Xie M.H., Yansura D., Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I., Godowski P.;
                                                                                                                                                                                                                                                                                            Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 667;
                                                                                                                                                                                                                                                                            Homo sapiens (Human).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Eutele
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                            Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ,
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1048; DB 2;
Pred. No. 6.9e-88;
1; Mismatches 1;
                                                                                                                                                                                     667 AA
                                                                                                                                                                                                               Created)
                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HLGVQVWQRABCPQVPKI 199
                                                                                                                    183 HLGVOVWORAECPOVPKI 200
                                                                                             182 HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98.84;
                                                                                                                                                                                               Q9BX79, Q9H9UB;
01-JUN-2001 (TrEMBLrel. 17,
01-JUN-2001 (TrEMBLrel. 17,
05-JUL-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 99.0°
Matches 196; Conservative
                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                   STRA6 isoform 1.
ORFNames=UNQ3126;
                                                                                                                                                                                                                                                                                                      Mammalia; Euther
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                            Pennica D.;
                63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        182
                                                                                                                                                                                       09BX79
                                                                                                                                                          RESULT
                                                                                                                                                                        Q9BX79
                                                                g
                                       ò
                                                                                           ò
                                                                                                                    임
                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

```
44 SÓPAGNÓTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 104 VLLLLAMIVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              164 ALPFLTLASAPSQDGKTEAPRGAWKILGLFYYAALYYPLAACATAGHTAAHLLGSTLSWA 223
                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
TISSUB=Human endometrium;
TISSUB=Human endometrium;
Poustka A., Albert R., Moosmayer P., Schupp I., Wellenreuther R.,
Mewes H.W., Well B., Amid C., Osanger A., Fobo G., Han M., Wiemann S.;
Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
EMBL, BXS31413; CAD97655.1; -.
Hypothetical protein.
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VLLLLAMLVRRROLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASISIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Overexpression of the retinoic acid-responsive gene Stra6 in human cancers and its synergistic induction by Wnt-1 and retinoic acid."; Cancer Res. 0:0-0(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Szeto W., Jiang W., Tice D.A., Rubinfeld B., Hollingshead P.G., Fong S.E., Dugger D.L., Pham T., Yansura D.G., Wong T.A., Grimaldi J.C., Corpuz R.T., Singh J.S., Frantz G.D., Devaux B., Crowley C.W., Schwall R.H., Eberhard D.A., Rastelli L., Polakis P., Pennica D.;
                                                                                                                                                                                                                 Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Craniata; Vertebrata; Euteleostomi;
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 708;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB88B84AEAD286ED CRC64;
                                               01-0CT-2003 (TrEMBLrel. 25, Created)
01-0CT-2003 (TrEMBLrel. 25, Last sequence update)
01-0CT-2003 (TrEMBLrel. 25, Last annotation update)
Hypothetical protein DKFZp686F1959 (Fragment)
Name-DKFZp686F1959;
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1048; DB 2;
Pred. No. 7.3e-88;
1; Mismatches 1;
  Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 658 AA.
708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     224 HLGVQVWQRAECPQVPKI 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        77825 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98.8%;
99.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUN-2001 (TrEMBLrel. 17,
01-JUN-2001 (TrEMBLrel. 17,
05-JUL-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 99.0
Matches 196; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           708 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORFNames=UNQ3126;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRA6 isoform
```

ö

 α

```
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          070491;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   070491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
       SORRERE
                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Muscle;

XX MEDINR=22388257; PubMed=12477932; DOI=10.1073/pnas.242601899;

X Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

X Altachul S.F., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

Altschul S.F., Zeberg B., Buetow K.H., Schaefer C.F., Bhar N.K.,

Altschul S.F., Zeberg B., Buetow K.H., Schaefer C.F., Bhar N.K.,

Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A platchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Robars S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

Richards S., Worley P.M., Sodergren E.J., Lu X., Gibbs R.A.,

Rahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Nillalon D.K., Muzny D.M., Schevchenko Y., Bouffard G.G.,

Rodriguez A.C., Grimwood J., Schwutz J., Myers R.M., Butterfield Y.S.,

Kraywinski M.I., Skalska U., Smallus D.E., Schnerch A., Schein J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VLLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALPFLTLASAPSODGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWA 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Jones S.J., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 SQPAGNQTSPGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOPAGNOTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
MEDLINE=22887296; PubMed=129753109; DOI=10.1101/gr.1293003; Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D., Brush J., Chew B., Chui C., Crowley C., Currell B., Deuch B., Dowd P., Eaton D., Foster J., Grimaldi C., Gu Q., Hass P.E., Heldens S., Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee J., Lewis L., Liao D., Mark M., Robbie E., Sanchez C., Schoenfeld J., Seehagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts A., Vandlen R., Watanabe C., Wieand D., Woods K., Xie M.H., Yansura D., Xi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                FLJ12541 protein.
Mono sapiena (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 658;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                         658 AA; 72582 MW; 5405281727F647DD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                   tch
al Similarity 94.4%; Score 986.5; DB 2;
al Similarity 94.4%; Pred. No. 3.1e-82;
187; Conservative 1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  182 HLGVQVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HĽĠVQVWQRÁECPQVPKI 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JUL-2004 (TrEMBLrel, 27, 05-JUL-2004 (TrEMBLrel, 27, 05-JUL-2004 (TrEMBLrel, 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  62
                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q6PJF8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q6PJF8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11D
DDT 1
DD DD 1
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

```
ä
                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62 VLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDED 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63 VILLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFWVLLSSLCLLLPDED 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99
                                                                                                                                                                                                                                                                                                                                                                                                                 62
                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Developmental expression pattern of Stra6, a retinoic acid-responsive gene encoding a new type of membrane protein."; Mech. Dev. 63:173-186(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSILVLLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 SQPAGNQTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                 3 sopagnorspearedysycswyldepoegeelopegevpschrsippglyhaclasisil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SECURNCE FROM N.A.

MEDLINE=95377533; PubMed=7649373; DOI=10.1006/dbio.1995.1226;

Bouillet P., Oulad-Abdelghani M., Vicaire S., Garnier J.M.,

Schubbaur B., Dolle P., Chambon P.;

"Efficient cloning of cDNAs of retinoic acid-responsive genes in P19
embryonal carcinoma cells and characterization of a novel mouse gene,

Stral (mouse LERK-2/Ep192).

Dev. Biol. 170:420-433(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEGLINE-97346723; PubMed-9203140; DOI-10.1016/S0925-4773(97)00039-7; Bouillet P., Sapin V., Chazaud C., Messaddeg N., Decimo D., Dolle P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 670;
                                                                                                                                                                                                                                                            Length 159;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41; Indels
                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bouillet P.;
Submitted (APR-1998) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                       to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6ACE69F3EE16A4F7 CRC64;
                                                                                                                                    Strausberg R.;
Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases
EMBL, BC01581; AAH15881.1; -.
SEQUENCE 159 AA; 17190 MW; 7FB62BED986EC3B9 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-AUG-1998 (TrEMBLrel. 07, Created)
01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
01-NOV-1999 (TrEMBLrel. 12, Last annotation update)
and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65.7%; Score 697; DB 2; 68.6%; Pred. No. 1.4e-55;
                                                                                                                                                                                                                                                            Score 745; DB 2;
Pred. No. 1.2e-60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AF062476; AAC16016.1; -.
MGD; MGI:107742; Stra6.
GO; GO:0016021; C:integral to membrane; TAS.
SEQUENCE 670 AA; 73774 WW; 6ACE69F3EE16?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   670 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 133; Conservative 18; Mismatches
                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 123 ALPFLTLASAPSQDGKTEAPRG 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              122 ALPFLTLASAPSQDGKTEAPRG 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Retinoic acid-responsive protein.
                                                                                                                                                                                                                                                                 70.2%;
                                                                                                                                                                                                                                                                                                                       Matches 141; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=10090;
                                                                                                         TISSUE=Muscle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chambon P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name=Stra6
```

us-09-816-653a-2.rup

```
46.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 92; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                  187 QVWQKAECPQDPKI
                                                              186 QVWQRAECPQVPKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sest Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                              Q7L9G1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q8C442
                                                                                                                                                                                                                                                                                                                                      07L9G1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Aatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 9
                                                                                                                                                                                                                                                           RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q8C442
ID Q8
                                                                                                                                                                                                                                                                                                                                                                      DDT TO DD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                         원
                                                                  \stackrel{>}{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

STRAIN=C57BL/6; TISSIB=Eye;

MISTINE=238825; PubMed=12477932; DOI=10.1073/pnas.242603899;

A Straubberg R.D., Feingold E.A., Grouse L.H., Derge J.G.,

A Alschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Alschul S.F., Zeeberg B. Buetow K.H., Schaefer C.F., Bhat N.K.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

B Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

B Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong C.,

B Topicron M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

B Brownstein M.J., Usdin T.B., Toonbiyuki S., Carninci P., Prange C.,

R Brownstein M.J., Usdin T.B., Toonbiyuki S., Carninci P., Prange C.,

B Brownstein M.J., Wokernan R.J., Abramson R.D., Mullahy S.J.,

B Broak S.A., McEwan P.J., McKernan R.J., Maran A.M., Gay L.J., Hulyk S.W.,

R Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

A Whiting M., Madan A., Young A.C., Shaverchenko Y., Bouffard G.G.,

R Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

R Richards R.M., Touchman J.W., Green E.D., Dickson M.C.,

R Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

R Richards M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,

Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDEDALPF 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              126 LTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWAHLGV 185
LAMIVRRRQIMPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDEDALPF 125
                                               99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9 GSOTSSGVTDDYS--SWYIEEPLGAEEVQPEGVIPLCQLTAPPALLHACLASLSFLVLLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6 GNOTSPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSILVLLL
                                                                                                                                                                                            LTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWAHLGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi;
Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 65.7%; Score 697; DB 2; Length 670; Best Local Similarity 68.6%; Pred. No. 1.46-55; Matches 133; Conservative 18; Mismatches 41; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Strausberg R.;
Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
EMBL; BC075657, AAH75657.1; -.
GO; GO:0016021; C:integral to membrane; TAS.
SEQUENCE 670 AA; 73715 MW; 96F963708BEF91249 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                           QVWQRAECPQVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN=C57BL/6; TISSUE=Eye;
                                                                                                                                                                                                                                                                                                                                                                                  187 ÓVWÓKABCPÓDPKÍ 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and mouse cDNA sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Stra6 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=Stra6;
       99
                                                                                                                                                         126
                                                                                                                                                                                                                                                                                                           186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q6DIA8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DDT TO DD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                             ð
                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                           ò
```

```
RN 113
RN 113
RN 114
RN 125
RN 125
RN 126
RN 127
RN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              166
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              107 MVLLSSLCLLLPDEDALPFLTLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAACATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nat. Genet. 36:40-45(2004).
EMBL; AK022603; BAB14122.1; -.
SEQUENCE 560 AA; 61987 MW; DFOFFED7687AED74 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Hypothetical protein FLJ12541.
Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 488; DB 2;
Pred. No. 2e-36;
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      167 GHTAAHLLGSTLSWAHLGVOVWORAECPOVPKI 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                     560 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GHTAAHLLGSTLSWAHLGVQVWQRAECPQVPKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         137
                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
```

```
MGD; MGI:107742; Stra6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=Eye;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-Eye;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                             9Z5G9Ö
                                                                                                                                                                                                                                                                                                                                                              O6DGZ6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                           Matches
                                                                                                                                                                                                                                                                                                                               RESULT 10
                                                                                                                                                                                                                                                                                                                                               O6DGZ6
                                                                                                                                                                                                                                                                                                                                                                              à
SAS
                                                                                                                          ઠે
                                                                                                                                                     g
                                                                                                                                                                                    ò
                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C STRAIN-C57BL/6J; TISSUE-Hippocampus;
Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
Adachi J., Aizawa K., Harangaki T., Hara A., Hashizume W.,
Anyashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,
Anyashida K., Hayatsu N., Hiramoto K., Hiraoka T., Hirozane T.,
An Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kaukawa T.,
A Ratoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
A Karihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
A Saito R., Saltoh H., Sakai C., Sakai K., Sakazume N., Sano H.,
A Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.

E MBL; AKO83120; BAG38769.1; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs.";
Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIR-C57BL/6J; TISSUE=Hippocampus;
MEDLINE=20499374, PubMed=11042159; DOT=10.1101/gr.145100;
Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M., Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
mormalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes.";
Genome Res. 10:1617-1630(2000).
                 01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Mus musculus adult male hippocampus CDNA, RIKEN full-length enriched
library, clone:C630015F10 product:stimulated by retinoic acid gene 6,
                                                                                                                                                                                                               STRAIN=CS7BL/60; TISSUE-Hippocampus; MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9; Carninci P., Hayashizaki Y.; High-efficiency full-length cDNA cloning."; Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=C57BL/6J; TISSUB=Hippocampus;
MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
Shibata K., Itoh M., Aizawa K., Nagaoka S., Sabaki N., Carninci P.,
Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M.,
Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A.,
Yamamoto R., Matsunato H., Sakaguchi S., Ikegami T., Kashiwagi K.,
Pujiwake S., Inoue K., Togawa W., Izawa M., Ohara E., Watahiki M.,
Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J.,
Rike integrated sequence analysis (RISA) system-384-format
Genome Res. 10:1757-1771(2000).
                                                                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                      "Functional annotation of a full-length mouse cDNA collection."; Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                            The FANTOM Consortium,
the RIKEN Genome Exploration Research Group Phase I & II Team;
                                                                                                                                                                                                                                                                                                                          STRAIN-C57BL/61; TISSUE-Hippocampus;
MEDLINE-21085660; PubMed-11217851; DOI-10.1038/35055500;
RIKEN FANTOM CONSOrtium;
                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-C57BL/6J; TISSUE=Hippocampus;
                                                                                                full insert sequence.
                                                                                                                             Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A
                                                                                                                                                                           NCBI_TaxID=10090;
                                                                                                                Name=Stra6;
```

```
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Alausner R.D., Collins F.S., Wagner L., Shanemen C.M., Schuler G.D.,
Altechul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Altechul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
Diatchenko L., Marushia K., Farmer A.A., Rubin G.M., Hong L.,
As prapleton M.J., Uddin T.B., Ponaldo M.F., Casavant T.L., Scheet T.E.,
Brownstein M.J., Uddin T.B., Ponaldo M.F., Carninci P., Prange C.,
Brownstein M.J., Weßwan P.J., McKernan K.J., Malek J., Gunaratne P.H.,
Richards S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.M.,
Allalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Allalon D.K., Mazny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Milting M., Madan A., Young A.C., Shevchenko Y., Bouffaxd G.G.,
Milting M., Madan A., Young A.C., Shevchenko Y., Bouffaxd G.G.,
Allakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
Allakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
Allakesley R.W., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>ښ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                           66 LAMIVRRROLWPDCVRGRPGLPSPVDFLAGDRPRAVPAVFMVILSSLCLLLPDEDALPF 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10 SPGATEDYSYGSWYIDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSILVLLLLAML
                                                                                                                                                                                                                                                                                                                                                               GSQTSSGVTDDYS--SWYIEEPLGAEEVQPEGVIPLCQLTAPPALLHACLASLSFLVLLL
                                                                                                                                                                                                                                                                          GNOTSPGATEDYSYGSWYLDEPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSILVLLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-0CT-2004 (TrEMBLrel. 28, Created)
25-0CT-2004 (TrEMBLrel. 28, Last sequence update)
25-0CT-2004 (TrEMBLrel. 28, Last annotation update)
25-0CT-2004 (TrEMBLrel. 28, Last annotation update)
Hypochetical protein (Fragment).
Brachydanio rerio (Zebrafish) (Danio rerio).
Brachydanio rerio (Zebrafish) (Danio rerio).
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae.
                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14;
                                                                                                                                                                                                      .;
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 238;
                                                                                                                      Length 137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         74; Indels
                                                                                                                                                                                                      29; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        238 AA; 26788 MW; 99E960B5C4FD52B7 CRC64;
to membrane; TAS. W; 27A54C974EF867CC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                / Match 11. 31.8%; Score 337; DB 2; Local Similarity 37.4%; Pred. No. 6.5e-23; Les 71; Conservative 31; Mismatches 74
                                                                                                                  40.2%; Score 427; DB 2;
66.4%; Pred. No. 1.9e-31;
iive 12; Mismatches 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       238 AA.
GO; GO:0016021; C:integral to
SEQUENCE 137 AA; 14573 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Strausberg R.;
Submitted (JUL-2004) to the
EMBL; BC076188; AAH76188.1;
                                                                                                                                                                                                           85; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        126 LTLASAPS 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                127 LNĽTAÁSS 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hypothetical protein
NON TER 238 2
                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=7955;
```

```
Nat. Genet.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q6ZNR9
Q6ZNR9;
                         RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q6ZNR9
                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RRXCOCOBITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

STRAIN=RBSO / ATCC BAA-588;

MEDLINE=22827954; PubMed=12910271; DOI=10.1038/ng1227;

MEDLINE=22827954; PubMed=12910271; DOI=10.1038/ng1227;

A Parkhill J., Sebaihia M., Preston A., Murphy L.D., Thomson N.R.,

A Harris D.E., Holden M.T.G., Churcher C.M., Bentley S.D., Mungall K.L.,

A Chillingworth T., Collins M., Cronin A., Davis P., Doggett J.,

A Chillingworth T., Collins M., Cronin A., Davis P., Doggett J.,

A Rebinowites B., Norberczak H., O'Neil S., Ormond D., Price C.,

A Rabbinowitech E., Rutter S., Sanders M., Saunders D., Seeger K.,

Sharp S., Simmonds M., Skelton J., Squares R., Squares S., Stevens K.,

Munin L., Whitehead S., Barrell B.G., Maskell D.J.;

"Comparative analysis of the genome sequences of Bordetella pertussis,

I "Comparative analysis of the genome sequences of Bordetella pertussis,

I Nat. Genet. 35:32-4012003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRAVPAAVEWVLLSSLCLLLPDDEDALPFLTLASAPSQDGKTEAPRGAWKIL--GLFHYAA 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    156 LYY-----PLAAC-----ATAGHTAAH----LLGSTLSWAHLGVQVWQRA 191
                                                                             70 VRRRQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFWVLLSSLCLLLPDEDALPFLTLA 129
                                                                                                                                                                              130 SAPSODGKTEAPRGAWKILGLFHYAALYYPLAACATAGHTAAHLLGSTLSWAHLGVQVWQ 189
                                                                                                                                                                                                        43 HTSIPPGLY---HACLAS--LSILVLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDR 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41
2 SAETVNNYDYSDWY---ENAAPTKAPVEVIPPCDFTADEGLFHICIAAISLVVMLVLAIL 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PPQLLAASFGVAFALSAVLL-----TARRAWGRLRAPAGAWLLAVGGIFGYHA
                                                                                                                   59 ARRQKL-SDNQRGLTGLLSPVNFLDHTQHKGLAVAVYGVLFCKLVGMVLSHHPLPFT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bordetella bronchiseptica (Alcaligenes bronchisepticus).
Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
Alcaligenaceae; Bordetella.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9.4%; Score 99.5; DB 2; Length 293; 27.3%; Pred. No. 0.58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        293 AA; 29783 MW; E66BA78D5E88CA0C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-007-2003 (TrEMBLrel. 25, Created)
01-007-2003 (TrEMBLrel. 25, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Putative membrane protein.
OrderedLocusNames=BB4812;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       293 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; BX640451; CAE35175.1; -. GO; GO:0016020; C:membrane; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPR000620; DUF6.
Pfam; PF00892; DUF6; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                   190 RAECPQVPKI 199
                                                                                                                                                                                                                                                                                                            : : | |: | : | 1.1
168 KVDCPKTPQI 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 50; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Complete proteome.
SEQUENCE 293 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ECP 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGP 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=518;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98
                                                                                                                                                                                                                                                                                                                                                                                                                                                            DDT TO DDT TO DD T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                  ે
                                                                                                                           g
                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                            셤
```

```
SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE PROPERTY

MEDINNE-2287954; PubMed-12910271; DOI=10.1038/ng1227;

MEDINNE-2287954; PubMed-12910271; DOI=10.1038/ng1227;

MARTIS D.E., Holden M.T.G., Churcher C.M., Bentley S.D., Mungall K.L., A Harris D.E., Holden M.T.G., Churcher C.M., Bentley S.D., Mungall K.L., A Achtman M., Atkin R., Baker S., Basham D., Bason N., Cherevach I., Chillingworth T., Collins M., Cronin A., Davis P., Doggett J., Chillingworth T., Gollins M., Cronin A., Davis P., Doggett J., Reltwell T., Gobbe A., Hamalin N., Hauser H., Holroyd S., Jagels K., Leather S., Moule S., Norberzak H., O'Neil S., Ormond D., Price C., Rabbinowitsch B., Rutter S., Sanders M., Saunders D., Seeger K., Sharp S., Simmonds M., Skelton J., Squares R., Squares S., Stevens K., Unwin L., Whitehead S., Barrell B.G., Maskell D.J.;

"Comparative analysis of the genome sequences of Bordetella pertussis, Bordetella parapertussis and Bordetella bronchiseptica.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90 LYFYALGNAPVAEASLIAYLWPLLIVLFALRGAGGARRWRALAGAALGFAGTALLVWQRA 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             156 LYY-----PLAAC-----ATAGHTAAH----LLGSTLSWAHLGVQVWQRA 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98 PRAVPAAVFMVLLSSLCLLLPDEDALPFLTLASAPSQDGKTEAPRGAWKIL--GLFHYAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 43 HTSIPPGLYHACLAS----LSILVLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 HVSALPGAQPARHAANGAGVAAILLWASIALWTATAQ------GLP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata, Vertebrata, Euteleostomi;
Catarrhini, Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         63;
                                                                                                                                              Bordetella parapertussis.
Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
Alcaligenaceae; Bordetella.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 293;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        293 AA; 29769 MW; 1C52078C7FF76A0E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                           Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. 1.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 96.5;
   Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL, BX840436, CAE39503.1, --
GO, GO:0016020, C:membrane, IEA.
InterPro, IPR000620, DUF6.
Pfam, PF00892, DUF6; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hypothetical protein FLJ27266.
Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata;
Mammalia; Butheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35:32-40(2003).
01-0CT_2003 (TrEMBLrel. 25, 01-0CT-2003 (TrEMBLrel. 25, 01-MAR-2004 (TrEMBLrel. 26, Putative membrane protein.
                                                                                                                      OrderedLocusNames=BPP4224;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          [1]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Complete proteome
SEQUENCE 293 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          192 ECP 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGP 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                                                                                                                                                                                                                                          NCBI_TaxID=519;
```

```
Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=519;
                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q7W6G2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q7W6G2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HERE THE SOURCE CONTRACT TO THE SECOND SECON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
S & B B
                                                                                                                                                                                                                                                                   ଚ
                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NECTION OF STATES AND 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7 NQTSPGATEDYSYGSWYIDEPQ----GGXELQPEGEVPSCHT-SIPPGLYHACLASLSIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62 VLLLLLAMLVRR---RQLWPDCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           161 LLLIALMLWRLHWRRLLSKVLESHPRTRSP--GLVGIRPTPLPVSPMALRCCS----P
                                                                                                                В.,
                  Arita M., Takahashi-Fujii A., Tanase T., Imose N., Takeuchi K., Arita M., Musashino K., Yuuki H., Hara H., Suzuki Y., Hata H., Indagawa K., Mizuno S., Morinaga M., Kawamura M., Sugiyama T., Irie R., Otesuki T., Sabac H., Nishikawa T., Sugiyama A., Kawakami E Nagai K., Isogai T., Sugano S.; Subirited (UUL-2003) to the EMBL/GenBank/DDBJ databases.

EMBL; AKI30776; BAC85436.1; -.
GO; GO:0005524; F:ATP binding; IEA.
GO; GO:0004713; F:protein-tyrosine kinase activity; IEA.
GO; GO:0004713; F:receptor activity; IEA.
GO; GO:000468; P:protein amino acid phosphorylation; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9.1%; Score 96.5; DB 2; Length 441;
14.1%; Pred. No. 1.7;
ve 22; Mismatches 73; Indels 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             441 AA; 48434 MW; E43EDFC4753A0BB4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bacteria; Cyanobacteria; Chroococcales; Gloeobacter
NCBI_TaxID=33072;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-WAR-2004 (TrEMBLrel. 26, Created)
01-WAR-2004 (TrEMBLrel. 26, Last sequence update)
01-WAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PS50011; PROTEIN_KINASE_DOM; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         214 IOPTASFWPLTPVPLEARAPPHPPG 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          119 DEDALPFLTLASAPSQDGKTEAPRG 143
                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR011009; Kinase_like...
InterPro; IPR000719; Prot Kinase.
InterPro; IPR0002290; Ser thr pkinase.
InterPro; IPR001245; Tyr pkinase.
InterPro; PD000001; Prot kinase; 1.
SMART; SM00220; S_TKc; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OrderedLocusNames=gll2182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 24.1%
Matches 35; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gloeobacter violaceus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [1]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gll2182 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=PCC 7421;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       O7NIK1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q7NIK1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q7NIK1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
```

```
SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE 2282/ ATCC BAA-587;

MEDLINE=22827954; PubMed=12910271; DOI=10.1038/ng1227;

MEDLINE=22827954; PubMed=12910271; DOI=10.1038/ng1227;

MARTIS D.E., Holden M.T.G., Churcher C.M., Bentley S.D., Mungall K.L.,

Harris D.E., Holden M.T.G., Churcher C.M., Bentley S.D., Mungall K.L.,

Achtman M., Atkin R., Baker S., Basham D., Bason N., Cherevach I.,

Chillingworth T., Collins M., Cronin A., Davis P., Doggett J.,

Chillingworth T., Goble A., Hamlin N., Hauser H., Holroyd S., Jagels K.,

Leather S., Moule S., Norberzak H., O'Neal S., O'rmond D., Price C.,

Rabbinowitsch B., Rutter S., Sanders M., Saunders D., Seeger K.,

Rabbinowitsch B., Rutter S., Sanders M., Saunders D., Seeger K.,

Normparative analysis of the genome sequences of Bordetella pertussis,

Nat. Genet. J3:32-40(2033).

Nat. Genet. J3:32-40(2033).

Nat. Genet. J3:32-40(2033).

Serine of the protein (By similarity).

C. -- STMILANTY: Contains I acyl carrier domain.

EMBL: BK640432; IRAS.

HSSP; P39455; IRAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   86 LPSPVDFLAGD-RPRAVPAA------VFMVLLSSLCLLLPDEDALPFLTLASAP 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          133 SQDGKTEA-----PRGAWKILGLFHYAALYYPLAACATAGHTAAHLLG-----STLS 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      103 RSDGRLRGGVTGYLKRRAWRILPPY-FAALGISLLVIALVGAGSGQSLGYMWDKAMNGFT 161
                                                                                                                                                                                                                                                                                                        26 EPQGGXELQPEGEVPSCHTSIPPGLYHACLASLSILVLLLLAMLVRRRQLWPDCVRGRPG 85
                                                                                                                                                                                                                                                                                                                                                       14 EPRGDMTTEPKPDKPSLRLHYLDG-----LRGLTALYILFF------HLWCD-LSFKPQ 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Missip 73413; Ind.

GO; GO:0000036; F:acyl carrier activity; IEA.

GO; GO:0004024; F:alcohol dehydrogense activity, zinc-dependent; IEA.

GO; GO:00048037; F:cofactor binding; IEA.

GO; GO:0008270; F:zinc ion binding; IEA.

GO; GO:000653; P:fatty acid biosynthesis; IEA.

GO; GO:0008152; P:metabolism; IEA.

InterPro; IPR001227; Ac transferase.

InterPro; IPR001287; Ac transferase.

InterPro; IPR001089; IG MAC.

InterPro; IPR001089; IG MAC.

InterPro; IPR001099; IG MAC.

InterPro; IPR001099; IG MAC.
                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                          63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-0CT-2003 (TrEMBLrel. 25, Created)
01-0CT-2003 (TrEMBLrel. 25, Last sequence update)
01-0CT-2003 (TrEMBLrel. 26, Last annotation update)
Putative type I polyketide synthase.
Name=wcbR; OrderedLocusNames=BPP2950;
Bordetella parapertussis.
Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 840;
                                                                                                                                                                                                                                             65; Indels
                                                                                                  90623 MW; 4C2A59EF60ABD838 CRC64;
                                                                                                                                                                           DB 2;
                                                                                                                                                                        8.5%; Score 90.5; DE
26.2%; Pred. No. 12;
:ive 21; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT; 2527 AA
Pfam, PF00112; Hexapep, 6.
PROSITE, PS001101; HEXAPEP_TRANSFERASES; 1.
Complete proteome.
SEQUENCE 840 AA; 90623 MW; 4C2AS9EF60A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180 W----AH-LGVQVWQRAECPQV 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  162 WEGVLAHLLLVHNWSEAQASTI 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alcaligenaceae; Bordetella.
                                                                                                                                                                                                                                          53; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
```

```
و.
•
                                                                                                                                                                                                                                                                                                                                                                                   61 LVLLLLAMLVRRRQLWPDCVRGRPGLPSPVDFLAGD-RPRAVPAAVFMVLLSSL-CL--- 115
                                                                                                                                                                                                                                                                                                           24 IDEPOGGXELOPEGEVPSC-HTSIPPG-----LYHA-------CLASLSI 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match 8.5%; Score 90.5; DB 2; Length 2527;
Best Local Similarity 29.0%; Pred. No. 36;
Matches 51; Conservative 16; Mismatches 66; Indels 43; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                           116 ---LLPDEDALPFL----TLASAPSQDGKTEAPRGAWKILGLFHYAALYYPLAA 162
R InterPro; IPR006163; Pheppanteth_bind.
R Pfam; PF00109; Acyl_transf_1; 1.
R Pfam; PF00107; ADH_Zinc_N; 1.
R Pfam; PF00109; Ketcacyl-synt; 1.
R Pfam; PF002801; Ketcacyl-synt C; 1.
R PF000081; Acyl_carrier; 1.
R PF00008; PS00075; Acyl_DOMAIN; 1.
R PROSITE; PS00666; B KETOACYL_SYNTHASE; 1.
R PROSITE; PS00666; B KETOACYL_SYNTHASE; 1.
R PROSITE; PS00290; IG_MHC; UNKNOWN 1.
R PROSITE; PS00290; IG_MHC; UNKNOWN 1.
R PROSITE; PS00280; AZ 269583 MW; 599CRAD9E3AE599B5 CRC64;
       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                       ઠે
```

Search completed: February 8, 2005, 13:40:07 Job time : 90.3473 secs

```
February 8, 2005, 13:20:30; Search time 144.513 Seconds (without alignments) 869.796 Million cell updates/sec
                                                                                                                                                                                                                                1 CYISALVLSCLLTFLVLMRS......APPTWLWESQQGFWRKKLVG 325
                                                                                                                                                                                                                                                                                                                                                                    2105692
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                            2105692 segs, 386760381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                            sw model
                                                                                                                                                                                                                                                                    BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                geneseqp2000s:*
geneseqp2001s:*
geneseqp2002s:*
geneseqp2003as:*
geneseqp2003as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A Geneseq 16Dec04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
                                                                          - protein search, using
                                                                                                                                                                                                                                                                                                                                                                                                        Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                          US-09-816-653A-4
1695
                                                                                                                                                                                                                score:
                                                                                                                                                                                                                                                                      Scoring table:
                                                                              OM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database :
                                                                                                                                                                                                                                  Sequence:
                                                                                                                                                                                                                                                                                                                              Searched:
                                                                                                                                                                                            Title:
Perfect
                                                                                                                  Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

geneseqp2004s:

	aci	2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	pro	Str	PRO	Str	100	PRO	PRO	PRO	sec	mem.	mny.	mny.	mud.	hum	PRO	hum
uo	Amino Human	Human Human	Human Novel	Human	Human	Human	Human	Human	Novel	_	_	Human	Novel	Nove1	Novel	Novel	Human	Novel
Description	Abb99463 Aau91277	Abp66761 Abp69799	Adb64152 Abu82087	Aau04557	Aau83631	Aau78575	Aao19413	Abu80778	Abo33744 Abj72267	Abj72395	Abo34290	Abj72097	Adb83570	Adb80676	Adb73217	Adb78299	Adb84947	Adb78053
RIES																		
SUMMARIES ID	ABB99463 AAU91277	ABF68961 AAB94108 ABP69799	ADB64152 ABU82087	AAB88572	AAU83631	AAU78575	ABB05048 AA019413	ABU80778	ABO33744 ABJ72267	ABJ72395	AB034290	ABJ72097	ADB83570	ADB80676	ADB73217	ADB78299	ADB84947	ADB78053
DB	. אמי	ი 4 ი	۰ 9	4 4	. rv	ı,	υrυ	91	စ ဖ	9	9	7	,	7	7	7	7	7
Length	325	560 560 560	599 666	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667
* Query Match	99.1	655. 55.50 55.50	65.5	ហាស	. v	٠. ن	65.5	65.5	65.5	65.5	. 65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
Score	1679	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5				1110.5		1110.5	1110.5
Result No.	1 7 7 7	ω 4π.Ω	9 /	.	, 51	# ;	13	14	15 16	17	18	19	20	21	22	23	24	25

Rastelli LK, Pennica D;

Human H Novel Novel	Adc36809 Human PRO Adc21799 Human PRO Adc49830 Novel hum Adc49029 Novel hum	Novel Novel Novel	Novel Novel Novel	Novel Novel Human	Adds0225 Human PRO Adds1236 Novel hum Adc48783 Novel hum
ADB87119 ADB84701 ADB83816 ADB72971	ADC36809 ADC21799 ADC49830 ADC49029	ADC49546 ADC47407 ADC47152	ADC78027 ADD06262 ADC77781	ADD50744 ADD50990 ADD50471	ADD50225 ADD51236 ADC48783
r		~~~	~~~		7 7 8
667 667 667 667	667	667	667 667 667	667 667 667	667 667 667
65.5 65.5 65.5	65 65 65 65 65 65 65 65 65 65 65 65 65 6	65.5	65.5	65.5 65.5 65.5	65.5 65.5 55.5
1110.5 1110.5 1110.5	1110.5	1110.5	1110.5	1110.5 1110.5 1110.5	1110.5 1110.5 1110.5
26 27 28 29	32 23	9 W W W	38 39	4 4 4 0 1 2	4 4 4 5 4 5

ALIGNMENTS

Human; STRA6; retinoic acid; hSTRA6; Wnt-1; cellular transformation; tumour; colon cancer; breast cancer; melanoma; gene therapy. Amino acid sequence of the carboxy-terminal of human STRA6. 'note= "unknown amino acid encoded by GNN" 'note= "unknown amino acid encoded by CAN" note= "unknown amino acid encoded by NNN" by NCC" 'note= "unknown amino acid encoded by ANG" 'note= "unknown amino acid encoded by NGT" note= "unknown amino acid encoded by TNG" /note= "unknown amino acid encoded by GAN" note= "unknown amino acid encoded note= "Gly encoded by GG" Location/Qualifiers ABB99463 standard; protein; 325 AA. 23-MAR-2001; 2001WO-US009561. 23-MAR-2000; 2000US-0191532P. (first entry) CURAGEN CORP. GENENTECH INC. Key Misc-difference 146 Misc-difference 290 Misc-difference 292 Misc-difference 147 Misc-difference 148 Misc-difference 213 Misc-difference 302 Misc-difference Misc-difference WO200277027-A1 Homo sapiens, 03-OCT-2002. 12-FEB-2003 ABB99463; (CURA-) (GETH) RESULT 1 ABB99463 WO200216600-A2.

28-FEB-2002

```
ö
                                                                                                                                                                                                                                                                                                                                                                                           protein, designated STRA6 (stimulated by retinoic acid). hSTRA6 (human STRA6) is modulated by Wnt-1 and plays a role in cellular transformation. The hSTRA6 nucleic acids and proteins are useful for treating tumours (e.g. colon and breast cancer, or melanoma), in gene therapy, in diagnostic applications where the presence or amount of the nucleic acid or protein is to be assessed, and in the generation of antibodies that bind immunospecifically to these sequences for therapeutic and diagnostic applications. hSTRA6 nucleic acid fragments may be used as hybridization probes to identify hSTRA6-encoding nucleic acids, or as PCR primers for amplification and/or mutation of hSTRA6 molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              graft versus host disease, Lesch-Nyhan syndrome; periodontitis; pancreatitis; musculoskeletal disorder; Parkinson's disease; Huntington's disease; behavioural disorder; pain; obesity; wound healing; neurodegenerative disorder; neuropsychiatric disorder; hypertension; growth disorder; reproductive disorder; lung disease.
                                                                                                          New human STRA6 (stimulated by retinoic acid) proteins and nucleic acids encoding the proteins, useful for treating cancers (e.g. colon and breast cancer, or melanoma), or in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 AYTLIHNPTLQVFRKTALLGANGAQPCSSLPGSPPSITPAMQPAGPPDHXGXVEVCLHWE 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                         The present sequence represents the carboxy-terminal portion of a human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 FLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVILONMAAHWVFLETHDGHP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 TAFCSLLLQAQSLLPRIWAAPQDSLRPGEEDEGWQLLQTKDSMAKGARPGAXRGRARWGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CYISALVLSCLLTFLVLMRSLVTHRLGSGGSGDGQFSWNLFSVPLPLPPLAGLLVQQIIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CYISALVLSCLLTFLVLMRSLVTHRLGSGGSGDGQFSWNLFSVPLPLPPPLAGLLVQQIIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FLGTTALAPLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVILQNMAAHWVFLETHDGHP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QLTNRRVLYAATFLLFPLNVLVGAMXXXCSPSIAIRHPTPGYYTYRNFLKIEVSQSHPAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 TAFCSLILGAGSLLPRTWAAPQDSLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AYTLLHNPTLQVFRKTALLGANGAQPCSSLPGSPPSITPAMQPAGPPDHXGXVEVCLHWE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; NOVX; gene therapy; cardiomyopathy; atherosclerosis; diabetes; cell signal processing; metabolic pathway modulation; inflammation; autoimmune disorder; scleroderma; transplantation; alleryy; systemic lupus erythematosus; haemophilia; Alzheimer's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
99.1%; Score 1679; DB 6; Length 325;
Best Local Similarity 100.0%; Pred. No. 5.3e-166;
Matches 325; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PXXGSAPPTWLWESQQGFWRKKLVG 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PXXGSAPPTWLWESQQGFWRKKLVG 325
                                                                                                                                                                                                                                                                                Claim 4; Page 11-13; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAU91277 standard; protein; 660 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-JUN-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human NOV2a protein.
WPI; 2003-058366/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 325 AA;
                                  N-PSDB; ABV76853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU91277;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU91277
```

셤

셤 ò g à

à

요

셤 ò

à

Homo sapiens

```
The invention relates to an isolated cytoplasmic, nuclear, membrane bound or secreted polypeptide, designated NOVX (actually NOVY, 2a, 2b, 3a, 3b, 4, 5a, 5b, 5c, 5d, 5e, 5f, 5g, 5h, 5i, 6, 7 and 8), a variant of NOVX, and mature form, or a variant of the mature form of NOVX. Also included are a mature form, or a variant of the mature form of NOVX. Also included are a colymnolated or a variant of the mature form of NOVX. Also included are a polymnolatedide, a cell comprising the vector, an anti-NOVX antibody. The polymnolation of NOVX polymnolation an agent which binds to NOVX polymnolation; including modulators of NOVX). NOVX, the polymnolation which binds to novX including modulation, autoimmune disorders and metabolic antibody are useful for diagnosing, treating or preventing a NOVX. associated elected from cardiomyopathy, atherosclarosis, diabetes, a disorder selected from cardiomyopathy, atherosclarosis, carnaplantation, allergies, systemic lupus erythematicsus, scleroderma, gathway modulation, inflammation, autoimmune disorders, scleroderma, carnaplantation, allergies, systemic lupus erythematicsus, scleroderma, patkinson disease, Alzheimer's disease, stroke, Lesch-Nyhan carnaplantation, allergies, systemic lupus erythematicsus, mucouloskeletal disorders, pain, neurodegenerative and neuropsychiatric disorders, hung diseases and meuropsychiatric disorders, hung diseases and meuropsychiatric disorders, hung diseases and many cher diseases and mapping, tissue typing, forensic biology, predictive medicine (e.g., diagnostic assays, prognostic assays, produce antibodies immunogen to produce antibodies immunospecific for NOVX is useful as immunogen to produce antibodies immunospecific for NOVX as vaccines to creen for produce antibodies immunospecific for NOVX as vaccines to creen for produce antibodies immunospecific for NOVX as vaccines to recent in a two-hybrid or three-hybrid ossay. The polymucleotide is creen for producing non-human transgenic animals. The antibody is useful case and actinical trials of comp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      polypeptides, termed NOVX, useful for treating inflammation, autoimmune disorders, hemophilia, Lesch-Nyhan syndrome, pancreatitis, musculoskeletal disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patturajan M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ellerman K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New isolated cytoplasmic, nuclear, membrane bound and secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Smithson G, Stone DJ, Istelli L, Verney CAM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gerlach V, Macdougall JR, Smithson G,
Spytek KA, Zerhusen BD, Rastelli L,
Tchernev VT, Padigaru M, Taupier RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 18; 245pp; English.
                                                                                                                                               200005-0228324P-
200005-0228934P-
200005-0228937P-
200005-022998P-
200005-022984BP-
200005-022984BP-
200005-022984BP-
200005-022984BP-
200005-022984P-
200005-022984P-
200005-022984P-
                                                                                                                                                                                                                                                                                                                                2001US-0276451P.
                                                                                              27-AUG-2001; 2001WO-US026518
                                                                                                                                                                                                                                                                                                                                                                          2001US-00939398
                                                                                                                                                                                                                                                                                                                                                                                                                 (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-292064/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; ABK55561.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Spytek KA, Z,
Tchernev VT,
                                                                                                                                                                                                                                                                         01-SEP-2000;
                                                                                                                                                                                                                                                                                                                31-JAN-2001;
                                                                                                                                                                                                                                                                                                                                    15-MAR-2001;
27-MAR-2001;
                                                                                                                                                                                             30-AUG-2000;
                                                                                                                                                                                                                                  01-SEP-2000;
                                                                                                                                                                                                                                                        01-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                            24-AUG-2001;
                                                                                                                                                                                                                 30-AUG-2000;
                                                                                                                                                                                                                                                                                               22-JAN-2001;
                                                                                                                                                                          25-AUG-2000;
                                                                                                                                                        2000;
```

셤 ઠે 원 ઠ 셤 ઠ 셤 ઠે

```
264 AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              491
                                                                                                                                                                                                            Sequence 491 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EP1074617-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-JUL-1999;
27-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB94108;
                                                                                                                                                                                                                                                                                                                                                             103
                                                                                                                                                                                                                                  Query Match
         Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB94108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
8
                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                     Human, genome mapping, gene therapy, food supplement; virus, fungus, cell-proliferative disorder; neurodegenerative disease; bacterial; Parkinson's disease; Alzheimer's disease; autoimmune disease; multiple sclerosis, diabetes, genetic disorder; wound; burn; infection; arthritis; cytostatic; immunomodulator; nootropic; neuroprotective; antiparkinsonian; antidiabetic; immunosuppressive; dermatological; haemostatic; vulnerary; fungicide; antibacterial; virucide; protozoacide;
                                                                                 412
                                                                                                                                                                                                              592
                                                                                                                                                                                                                                   258
                                                                                                                  New polynucleotides comprising sequences assembled from expressed sequence tags (ESTs), useful for treating cell-proliferative, neurodegenerative, autoimmune, genetic, myeloid or lymphoid, or platelet or coagulation disorders.
                                                                                                                                               ALAVILONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC----- 149
                                                              42
                                                                                                      97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ren F;
                                                                                                                                                                                                            533 NAIHLGQMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTM
                                                                            473 ALAVILQNMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMVATWRVLLSALY
                                                                                                                                                                                        150 -----SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTM
                                                                                                                                                                                                                                  AAPQDSLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTAL
                                                             ---GOFSWNLFS
                                                                                                       43 VPLP-----LPPLAGLIVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zhao QA, I
Ghosh M;
                      Length 660;
                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zhang J, Z
k, Wang Z,
                      66.9%; Score 1134; DB 5; 76.9%; Pred. No. 8.4e-109;
                                                              1 CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ch RW, Asundi V, Zha
Yamazaki V, Chen R,
3 D, Drmanac RT;
                                         4; Mismatches
                                                                                                                                                                                                                                                                                                                                                       ABP68961 standard; protein; 491 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                   Human polypeptide SEQ ID NO 1008.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Goodrich RW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-MAR-2002; 2002WO-US005095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wang D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-MAR-2001; 2001US-00799451
                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                            Matches 237; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tang YT, Zhou P, Go
Xue AJ, Yang Y, Ma
Wehrman T, Wang J,
                                                                                                                                                                                                                                                                               266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-759812/82.
N-PSDB; ABZ11178.
                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                               LGANGAQP
                                                                                                                                                                                                                                                                                                    LGANGAOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200270539-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antiarthritic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
   Sequence 660
                                                                                                                                                                                                                                                                                                                                                                                                 20-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                            ABP68961;
                                                                                                                                                                                                                                                                               259
                                                                                      353
                                                                                                                                                  86
                                                                                                                                                                                                                                     199
                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                   RESULT 3
                                                                                                                                                                                                                                                                                                                                              ABP68961
                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                               ઠે
```

```
The invention relates to an isolated polymucleotide (I) comprising.a nucleotide sequence selected from any of 948 sequences (ABZ1119-C nucleotide sequence selected from any of 948 sequences (ABZ1119-C nucleotide) or their mature protein coding portion, active domain coding protein or complementary sequences. The polymucleotides are useful for identifying expressed ganes or for physical mapping of human genome. The carcing expressed ganes or for physical mapping of human genome. The carcing expressed ganes (ABP68902-ABP69849) are useful as molecular weight concoded polypeptides (ABP68902-ABP69849) are useful as molecular weight concoded polypeptides (ABP68902-ABP69849) are useful as molecular weight concoded polypeptides (C genering and diagnostic seasys and for treating cell-cinaging, screening and diagnostic assays and for treating cell-correct also are also assays (multiple sclerosis, conflabetes, lupus) genetic disorders, wound, burns, incision, ulcers, liver conflabetes, infections (bacterial, viral, fungal, parasitic), cor lung fibrosis, infections (bacterial, viral, fungal, parasitic), cor thus printed specification, but was obtained in electronic form part cof the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SLRPGEEDEGMOLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           309 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMVATWRVLLSALYNAIHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  189 CYISALVLSCLLTFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         249 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                150 -SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            369 GOMDLSLLPPRAATLDPGYYTYRNPLKIEVSQSHFAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD------GQFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; primer; detection; diagnosis; antisense therapy; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 491;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LQNMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30; Indels
9; SEQ ID NO 1008; 1012pp + Sequence Listing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1110.5; DB 5;
Pred. No. 1.6e-106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 65.5%; Scor. 76.6%; Pred. No. 1...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human protein sequence SEQ ID NO:14340.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB94108 standard; protein; 560 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99JP-00248036.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-JUL-2000; 2000EP-00116126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 76.6
Matches 232; Conservative
```

ABP69799

```
4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        polynucleotide which comprises a 3'-end sequence, where the oligonucleotide comprises at least 15 nucleotides and the combination of the 5'-end sequence/3'-end sequence is selected from those defined in the specification. The primer sets can be used in antisense therapy and in gene therapy. The primers are useful for synthesising polynucleotides, particularly full-length cDNAs. The primers are also useful for the detection and/or diagnosis of the abnormality of the proteins encoded by the full-length cDNAs. The primers allow obtaining of the full-length cDNAs and specialised methods. AAH03166 to AAH13628 and AAH13631 to AAH13631 to AAH13632 to AAH13632 represent human amino acid sequences; and AAH13629 to AAH13632 represent colligonucleotides, all of which are used in the exemplification of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention describes primer sets for synthesising 5602 full-length CDNAs defined in the specification. Where a primer set comprises:

(a) an oligo-dr primer and an oligonucleotide complementary to the complementary strand of a polynucleotide which comprises one of the 5602 nucleotide sequences defined in the specification, where the oligonucleotide comprises at least 15 nucleotides; or (b) a combination of an oligonucleotide comprising a sequence complementary to the complementary strand of a polynucleotide which comprises a 5 -end sequence and an oligonucleotide comprising a sequence complementary to a sequence and an oligonucleotide comprising a sequence complementary to a
                                                                                                                                                                                                                                                                                                                                                                                      full-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           42
                                                                                                                                                                                                                                                                                                                                                                                  Primer sets for synthesizing polynucleotides, particularly the 5602 full length cDNAs defined in the specification, and for the detection and/or diagnosis of the abnormality of the proteins encoded by the full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      258 CYISALVLSCLLTFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             318 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              378 LONMAAHWVFLETHDGHPOLTNRRVLYAATFLLFPINVLVGAMVATWRVLLSALYNAIHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    498 SLRPGEEDBGMQLLQTKDSMAKGARPGASRGRARWGLAYTLLHNPTLQVFRKTALLGANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           --GQFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          150 -SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            438 GQMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLRPGEEDEGMOLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                  Yamamoto J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 560;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 8; SEQ ID NO 14340; 2537pp + Sequence Listing; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                               Saito K, Ya
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65.5%; Score 1110.5; DB 4; 76.6%; Pred. No. 1.9e-106; iive 4; Mismatches 30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD-
                                                                                                                                                                                                           Hayashi K, S
A, Nagai K,
                                                                                                                                                                                                                                               Sugiyama T, Wakamatsu A,
                                                                                                                                                                                                               Nishikawa T,
2000JP-00118776.
2000JP-00183767.
                                                                 09-JUN-2000; 2000JP-00241899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 76.6
Matches 232, Conservative
                                                                                                                                          (HELI-) HELIX RES INST
                                                                                                                                                                                                                                                                                                                 WPI; 2001-318749/34.
                                                                                                                                                                                                           Isogai T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 560 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AOP
                                    02-MAY-2000;
                                                                                                                                                                                                                                               Ishii S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                           Ota T,
```

8 6 8 8 8 8 8 8 8 8

```
The invention relates to an isolated polynuclectide (I) comprising a nucleotide sequence selected from any of 948 sequences (ABZ1119-ABZ12066) or their mature protein coding portion, active domain coding protein or complementary sequences. The polynucleotides are useful for identifying expressed genes or for physical mapping of human genome. The encoded polypeptides (ABP68902-ABP68949) are useful as molecular weight markers, as a food supplement, for generating antibodies, in medical imaging, screening and diagnostic assays and for treating cell-proliferative discades, autoimmune discasses (multiple sclerosis, diabetes, lupus) genetic disorders, myeloid or lymphoid disorders, platelet or coagulation disorders, wound, burns, incision, ulcers, liver arthritis, etc. Note: The sequence data for this patent did not form part
                                                                                                                                                                                                           arthritis; cytostatic; immunomodulator; nootropic; neuroprotective;
antiparkinsonian; antidiabetic; immunosuppressive; dermatological;
haemostatic; vulnerary; fungicide; antibacterial; virucide; protozoacide;
antiarthritic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43 VPLPLPPLAGLLVQQIIFPLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New polynucleotides comprising sequences assembled from expressed sequence tags (ESTs), useful for treating cell-proliferative, neurodegenerative, autoimmune, genetic, myeloid or lymphoid, or platelet
                                                                                                                                                           cell-proliferative disorder; neurodegenerative disease; bacterial;
Parkinson's disease; Alzheimer's disease; autoimmune disease;
multiple sclerosis; diabetes; genetic disorder; wound; burn; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ren F;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD------GQFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                           Human; genome mapping; gene therapy; food supplement; virus; fungus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zhao QA, I
Ghosh M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 560;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 9; SEQ ID NO 1846; 1012pp + Sequence Listing; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zhang J, Z
t, Wang Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1110.5; DB 5;
Pred. No. 1.9e-106;
; Mismatches 30; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Goodrich RW, Asundi V, Zh.
Ma Y, Yamazaki V, Chen R,
T, Wang D, Drmanac RT;
ABP69799 standard; protein; 560 AA
                                                                                                      Human polypeptide SEQ ID NO 1846.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 ;
                                                                                                                                                                                                                                                                                                                                                                                                          05-MAR-2002; 2002WO-US005095.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 65.5%;
Best Local Similarity 76.6%;
Matches 232; Conservative 4
                                                                                                                                                                                                                                                                                                                                                                                                                                            05-MAR-2001; 2001US-00799451
                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         coagulation disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Yang Y, Ma
T, Wang J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-759812/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tang YT, Zhou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; ABZ12016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 560 AA;
                                                                                                                                                                                                                                                                                                                                      WO200270539-A2
                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                     20-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                       12-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wehrman T,
                                  ABP69799;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      xue
   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
```

```
103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  597
                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 7
ABU82087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HANDER TO A STAN THE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention discloses a polynuclectide comprising a sequence selected from 1970 fully defined nucleotide sequences which encode novel botypeptides. Also claimed is a polypeptide encode by the polynucleotide or its partial peptide, an antibody binding to the polypeptide or peptide of the polynuclectide, immunologically assaying the polypeptide or peptide of peptide of the polynucleotide by contacting the polypeptide or peptide with the antibody of the encoded protein, and observing the binding between the two, a transformant carrying the polynucleotide in an expressible manner and an antisense polynucleotide. The oligonucleotide is useful as a primer for synthesising the polynucleotide, or as a probe for detecting the polynucleotide. The polynucleotides and encoded proteins are useful as pharmaceutical agents and many disease-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Otsuki T, Wakamatsu A, Sato H, Ishii S;
Hio Y, Otsuka K, Nagai K, Irie R, Tamechika I;
Otsuka M, Nagahari K, Masuho Y;
                                                                                                                                                                                    497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; pharmaceutical; diagnostic; gene therapy; tissue regeneration;
cell regeneration; membrane protein; signal transduction-related protein;
transcription-related protein; osteoporosis; neurological disease;
                                                                                            437
                                                                                                                                                                                                                                   263
                                                                                                                                                                                                                                                                               557
318 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New polynucleotides and polypeptides, useful for developing a diagnostic marker or medicines for regulation of their expression and activity, or
                                                                         SLRPGEEDEGMOLLOTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG
                                                                                                                                                                                                                                                         498 SIRPGEEDEGMQLLQTKDSMAKGARPGASRGRARWGLAYTLLHNPTLQVFRKTALLGANG
                                                                                                                                           150 -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                    GOMDLSLLPPRAATLDPGYYTYRNFLKIEVSOSHPAMTAFCSLLLOAQSLLPRTMAAPQD
                                                LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human protein encoded by clone CTONG20041260.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADB64152 standard; protein; 599 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (HELI-) HELIX RES INST.
(REAS-) RES ASSOC BIOTECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page; 222pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-NOV-2001; 2001JP-00379298
25-JAN-2002; 2002US-00350978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-MAR-2002; 2002EP-00007401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             as targets of gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Isogai T, Sugiyama T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Yamamoto J, Isono Y,
Seki N, Yoshikawa T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-450961/43.
N-PSDB; ADB62182.
                                                                                                                                                                                                                                                                                                                                    AQP 266
                                                                                                                                                                                                                                                                                                                                                                              558 AQP 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cancer; tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EP1308459-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-MAY-2003
                                                                                                 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADB64152;
                                                   103
                                                                                                                                                                                                                                        204
                                                                                                                                                                                                                                                                                                                                    264
                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 6
ADB64152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                   ò
                                                                                          셤
                                                                                                                                             ઠે
                                                                                                                                                                                       g
                                                                                                                                                                                                                                     è
                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                  ò
```

```
4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; secreted and transmembrane protein; PRO; cardiant; cytostatic; antiangiogenic; hypotensive; vulnenry; antiarteriosclerotic; gene therapy; cardiovascular disorder; endothelial disorder; angiogenic disorder; cardiac hypertrophy; trauma; cancer; age-related macular degeneration; atherosclerosis; hypertension; atterial restenosis; hemmatoid arthritis; angina; myocardial infarction; thrombophlebitis; lymphangitis; tumour angiogenesis; breast carcinoma; wound healing; chromosome mapping; gene mapping.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          416
genes may be included in them, for developing a diagnostic marker or medicines for regulation of their expression and activity, or as targets of gene therapy. The genes are involved in tissue and/or cell regeneration. Membrane proteins, signal transduction-related proteins, transcription-related proteins, disease-related proteins and genes encoding them can be used as indicators for diseases (e.g. osteoporoais, the arrological diseases, cancer, tunours. The CDNA may be used to regulate the activity or expression of the encoded protein to treat diseases. The sequence data for this patent is not represented in the printed specification, but is based on sequence information supplied by the European Patent Office.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              204 SLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD-------GQFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                150 -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37;
                                                                                                                                                                                                                                                                                                                                                                                                               Length 599;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel human secreted and transmembrane protein PRO10282.
                                                                                                                                                                                                                                                                                                                                                                                                                    DB 7;
                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1110.5; DB 7,
Pred. No. 2.1e-106;
4; Mismatches 30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABU82087 standard; protein; 666 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-JUL-2000; 2000US-0220664P.
01-JUN-2001; 2001WO-US017800.
                                                                                                                                                                                                                                                                                                                                                                                                                       65.5%;
76.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12-AUG-2002; 2002US-00219003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 76.6
Matches 232; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2003088063-A1.
                                                                                                                                                                                                                                                                                                                                                                       Sequence 599 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABU82087;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                264
```

```
WO200151635-A2
                                   Key
Modified-site
              sapiens.
                                                                                                                                                                                         Domain
                                                                      Region
                                                                                             Domain
                                                                                                                    Region
                                                                                                                                           Domain
                                                                                                                                                                  Region
                                                                                                                                                                                                               Region
                                                                                                                                                                                                                                       Domain
                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                      Domain
                                                                                                                                                                                                                                                                                                             Region
                                                                                                                                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                                                                                                                                                 Region
                                                                                                                                                                                                                                                                                                                                                                                                         Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Region
                                                                                                                                                                                                                                                                                                                                    Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Region
              Ношо
  4;
                                                                                                                                                                                                                                                                                                                                                                                                                                           423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                    The invention describes one hundred and eighty seven nucleic acids encoding novel human secreted and transmembrane (PRO) polypeptides. The PRO nucleic acids, polypeptides, agonists and antagonists are useful for treating or diagnosing a cardiovaccular, endothelial or angiogenic disorder in a mammal, e.g. cardiac hypertrophy, trauma, cancer, agerelated macular degeneration, atherosclerosis, hypertension, arterial restenosis, rheumatoid arthritis, angina, myocardial infarctions, thrombophlebitis, lymphangitis, tumour angiogenesis (such as breast carcinoma and liver carcinoma) and wound healing. The PRO nucleic acids have applications in molecular biology, including use as hybridisation probes, and in chromosome and gene mapping. This is the amino acid sequence of a novel human secreted and transmembrane PRO polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                     42
                                                        Gerritsen ME, Goddard A, Godowski PJ;
Smith V, Stephan JF, Watanabe CK, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              424 AYQTAFICLGILVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             484 LQNMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMVATWRVLLSALYNAIHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GQMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD------GQFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                           364 CYISALVLSCLLTFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LQNMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            150 -SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                 One hundred and eighty seven nucleic acids encoding PRO polypeptides, useful in diagnosis and treatment of cardiovascular (e.g. myocardial infarction), endothelial or angiogenic disorders in a mammal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; Stra6; PRO10282; 15q23; tumour; breast cancer; head tumour; leukaemia; lymphoid malignancy; inflammatory disorder; immunogenic disorder; antigen; antibody.
                                                                                                                                                                                                                                                                                                                                                                                            37;
                                                                                                                                                                                                                                                                                                                                                                     6; Length 666;
                                                                                                                                                                                                                                                                                                                                                                                            30; Indels
                                                                                                                                                                                                                                                                                                                                                                     Query Match 65.5%; Score 1110.5; DB 6 Best Local Similarity 76.6%; Pred. No. 2.4e-106; Matches 232; Conservative 4; Mismatches 30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAU04557 standard; protein; 667 AA.
                                                                                                                                                                Claim 11; Fig 80; 314pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human Stra6 homologue, PRO10282.
29-JUN-2001; 2001WO-US021066.
09-APR-2002; 2002US-00119480.
                                                        Desnoyers L,
                                  (GETH ) GENENTECH INC.
                                                                                            WPI; 2003-393229/37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ÀQP 666
                                                                                                                                                                                                                                                                                                                                               Sequence 666 AA;
                                                                     Grimaldi JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-SEP-2001
                                                        Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU04557;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAU04557

1D AAU0

XC AAU0

XX AAU0

XX AAU0

XX AAU0

XX AAU0

XX Huma

XX Huma

XX Huma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 8
##X#X####X#X###X#X####
                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
```

```
64. 375
note= "Prokaryotic membrane lipoprotein attachment site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human nucleic acid encoding a PRO10282 or PRO19578 polypeptide (the PRO polypeptides are referred to as Stra6 polypeptides), useful in molecular biology, including use as hybridization probes, and in chromosome and gene mapping.
                                                                                                                                              variant PRO19578"
                                                                                                                                                                                                 .32. .140
note= "ATP/GTP-binding site motif A (P-loop)"
                                                                                                                                              note= "Region deleted in Stra6
                                   note= "Asn is N-glycosylated"
                                                                                                                                                                                                                                                                                                                                                                                                                                        527. .633
|label= N_myristoylation_site
531. .637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /label= N_myristoylation_site 661. .667 /label= N_myristoylation_site
                                                                       'label= N_myristoylation_site
                                                                                                                                                                                                                                                                                      label= N_myristoylation_site
207. .222
label= Transmembrane_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  725. 531
|label= N myristoylation_site
560. 535
|label= Transmembrane_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /label= N_myristoylation_site
                                                                                                                                                                                                                                                                                                                                                             N myristoylation site
                                                                                                                                                                                                                                                                                                                                                                                                                                   N_myristoylation_site
                                                                                          54. .69 _/label= Transmembrane_domain89. .97
                                                                                                                                                                                                                                          l= Transmembrane_domain .182
                                                                                                                                                                                label= Transmembrane domain
                                                                                                                                                                                                                                                                                                                         Transmembrane_domain
                                                                                                                                                                                                                                                                                                                                                                                                   Transmembrane domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Transmembrane domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Transmembrane_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Transmembrane_domain
location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-JAN-2000; 2000US-0175849P.
14-APR-2000; 2000US-0197089P.
29-AUG-2000; 2000US-0228914P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-JAN-2001; 2001WO-US000847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       74.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ...489
/label= Tra
25
                                                                                                                                                                                                                                                                                                                                          241. .247
/label= N
                                                                                                                                                                                                                                                                                                                                                                                301. .320<sup>-</sup>
/label= Tr
                                                                                                                                                                                                                                     .166
                                                                                                                                                                                                                                                                                                                                                                                                                    17. .32
|abel=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           64. .38
label=
                                                                                                                                                                                                                                                      label=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pennica D, Smith V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-442146/47.
N-PSDB; AAS08630.
```

10-AUG-2000; 2000WO-JP005356.

WO200112660-A2

22-FEB-2001

99JP-00230344 99JP-00252551. 99JP-00281132.

17-AUG-1999;

07-SEP-1999

99JP-00301624 99JP-00313877

01-OCT-1999; 22-OCT-1999; 04-NOV-1999; CHEM RES CENT

(SAGA) SAGAMI CHEM RE (PROT-) PROTEGENE INC.

s, Kato

```
The sequence is human PRO10282, a homologue of murine Stra6, a retinoic acid responsive protein thought to play an important role in early dersoventral limb patterning during development and later in the control of endochondral ossification. The gene for the Stra6 homologue is located of endochondral ossification. The gene for the Stra6 homologue is located on chromosome 15q23. The Stra6 polypeptides, agonists, antagonists or anti-Stra6 antibodies are useful for preparation of a medicament useful in the treatment of a condition which is responsive to the Stra6 polypeptides may also be employed as molecular weight markers for protein electrophoresis. The Stra6 nucleic acids have applications in molecular biology, including use as hybridisation probes, and in chromosome and correat various conditions, including those characterised by correxpression and/or activation of amplified genes. Exemplary conditions or discorders include benign or malignant tumnour compounds may be used cordinery, bladder, breast, gastric, overing, sarconas, limited, hepatic carcinomas, sarconas, limited.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4
                                                                                                                                                                                                                                                                                                                                                     glioblastomas, and various head and neck tumours, leukaemias and lymphoid malignancies), neuronal, glial, astrocytal, hypothalamic and other glandular, macrophagal, epithelial, stromal and blastocoelic disorders, inflammatory, angiogenic and immunogenic disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD-------GQFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            103 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        545 GOMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      365 CYISALVLSCLLTFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       150 -SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SLRPGEEDEGMOLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 65.5%; Score 1110.5; DB 4; Length 667; Best Local Similarity 76.6%; Pred. No. 2.4e-106; Matches 232; Conservative 4; Mismatches 30; Indels 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB88572 standard; protein; 667
24; Fig 2; 159pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AQP 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 667 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB88572;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 999
 Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB88572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
   &$6666666666666666666666668%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SXXXEXEXEXXXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
AAF9417 to AAF94516 encode the human proteins given in AAB88557 to
CC AAB88606 (I) which have a hydrophobic domain. (I) have immunosuppressant,
CC AAB88606 (I) which have a hydrophobic domain. (I) have immunosuppressant,
CC anti-HTV, neuroprotective, antianaemic, vulnerary, antiulcer,
CC osteopathic, anti-inflammatory and cytostatic activities, and can be used
CC or genetic diagnosis and gene sources for gene therapy or for producing
CC or genetic diagnosis and gene sources for gene therapy or for producing
CC I in large quantities. Cells containing (II) are used for the detection
CC of ligands or receptors corresponding to membrane or secretory proteins
CC and to screen small molecule novel pharmaceuticals. Antibodies directed
CC (I) Activities of (I) may include cytokine and cell
CC (I) Activities of (I) may include cytokine and cell
CC (I) Activities of (I) may include cytokine and cell
CC (I) Activity, haematopoiesis regulating activity, tissue growth activity,
CC cutyity, haematopoiesis regulating activity, tissue growth activity,
CC cutyity, haematopoiesis regulating activity, tissue growth activity,
CC contrombolytic activity, receptor/ligand activity and anti-inflammatory
CC contrombolytic activity, receptor/ligand activity and anti-inflammatory activity and utilisease and tumours. (I) and (II) can be used for cere
CC control or nitrogen source, to effect metabolism, catabolism, and and uninarals, to effect between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      150 -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          365 CYISALVLSCLITFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFS 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human proteins with hydrophobic domains and the DNAs which encode them are useful for treating autoimmune disorders, burns and tumors and for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LQNMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1110.5; DB 4
Pred. No. 2.4e-106;
4; Mismatches 30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 288-291; 518pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       screening novel pharmaceuticals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 76.6%;
Matches 232; Conservative 4
                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-160059/16
                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; AAF94442.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 667 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
```

Human; hydrophobic domain; immunosuppressant; anti-HIV; neuroprotective; antianaemic; vulnerary; antiulcer; osteopathic; anti-inflammatory; cytostatic; gene therapy; autoimmune disorder; multiple sclerosis; HIV infection; anaemia; burn; ulcer; osteoporosis; tumour; wound healing; inflammatory bowel disease; nutritional supplement; appetite; vaccine; behavioural characteristic; immune response.

Homo sapiens

Human hydrophobic domain containing protein clone HP10713 #36.

엄 ò g

à

```
The invention relates to one hundred and twenty two nucleic acids encoding PRO polypeptides. The sequences of the 122 PRO polymucleotides encoding PRO polypeptides. The sequences of the 122 PRO polymucleotides, agoniets and antagonists are useful for treating a PRO related disorder. The PRO polypeptides are useful for diagnosing tumours, especially lung cancer, colon cancer, breast tumour, prostate tumour, rectal tumour or proliferation of, or gene expression, in pericyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating the release of tumour necrosis factor-alpha from human blood, for simulating the release of tumour necrosis factor-alpha from human blood, for simulating the proliferation of normal human dermal fibroblast cells. The PRO polypeptide may also be used as molecular weight markers and for tissue typing. The PRO nucleic acids have applications in molecular biology, including use as hybridisation probes, and in chromosome and gene mapping. AAU83592-AAU83713 represent human PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         545 GQMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; cancer; Stra6; PRO10282; cytostatic; stromal disorder; tumour; retinoid; Wnt; tumour antigen; leukaemia; lymphoid malignancy; neuronal disorder; glial disorder; strocytal disorder; hypothalamic disorder; glandular disorder; macrophagal disorder; epithelial disorder; blastocoelic disorder; chromosome 15q23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  425 AYQTAFICLGILLVQQIIFFLGTTALAFLVIMPVLHGRNLLLFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          150 -SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD------GQFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  103 LQNMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
                                                                                                                                                                                                                                                                                                                                                                                                             Score 1110.5; DB 5; Length 667;
Pred. No. 2.4e-106;
; Mismatches 30; Indels 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "N-myristoylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8. .12
/note= "N Glycosylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ą.
                                                                                                                                                                                                                                                                                                                                    protein sequences of the invention
Claim 11; Fig 80; 359pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU78575 standard; protein; 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                       4,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human Stra6 (PRO10282) protein.
                                                                                                                                                                                                                                                                                                                                                                                                               65.5%;
76.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 76.6
Matches 232; Conservative
                                                                                                                                                                                                                                                                                                                                                                            Sequence 667 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU78575;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Key
Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU78575
      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                One hundred and twenty two nucleic acids encoding PRO polypeptides, useful for treating a PRO related disorder and for diagnosing tumors such as lung cancer, colon cancer, breast tumor, prostate tumor, rectal tumor or liver tumor.
                                          263
                                                                                 664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Goddard A, Godowski PJ;
han JF, Watanabe CK, Wood WI;
                                                                GOMDLSLLPPRAATLDPGYYTYRNFLKIEVSOSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                          SLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG
                                                                                                                                                                                                                                                                                                                                                                                                                 Human; secreted protein; PRO; tumour; lung cancer; colon cancer; breast cancer; prostate tumour; rectal tumour; liver tumour; pericyte cell proliferation; chondrocyte cell proliferation; tumour necrosis factor-alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gerritsen ME, Goddard Smith V, Stephan JF,
                                                                                                                                                                                                                                                             AAU83631 standard; protein; 667 AA.
                                                                                                                                                                                                                                                                                                                                                                              Human PRO protein, Seq ID No 80.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0220664P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0220893P.
2000WO-US020710.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-MAR-2001; 2001US-00816744.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0220666P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000US-0222425P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           000US-0227133P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US023522
2000WO-US023328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US030873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0253646P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-00747259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-FEB-2001; 2001WO-US006520
01-MAR-2001; 2001WO-US006666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-MAY-2001; 2001US-00854208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-JUN-2001; 2001WO-US021066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0220607P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001WO-US017092
                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Desnoyers L,
, Gurney AL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2002-172001/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; ABK33575
                                                                                                                                                            667
                                                                                                                       AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200208288-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Grimaldi JC,
                                                                                                                                                              AOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-AUG-2000;
24-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-JUL-2000;
                                                                                                                                                                                                                                                                                                                                        08-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baker KP,
        545
                                          204
                                                                                 605
                                                                                                                       264
                                                                                                                                                                                                                                                                                                   AAU83631;
                                                                                                                                                              999
```

Ношо

263

664

424 102 484 149 544 203 604

42

Gaps

37;

```
Selectively enhancing the expression of a protein in a tumor cell characterized by aberrant Wnt signaling, useful for enhancing the efficacy of treatment of cancers, comprises treating the tumor cell with a retinoid.
                                                                                                                                                                                'note= "lipoprotein lipid attachment site"
                                    "ATP/GTP binding site motif A"
                                                                                                                                                                                                                                                               "N-myristoylation site"
                                                                                                                                                                                                                                                                               "N-myristoylation site"
                                                                                                                                                                                                                                                                                               "N-myristoylation site"
                                                                                                                                                                                                                                                                                                               /note= "N-myristoylation site"
                                                                                                                                   'note= "N-myristoylation site"
                                                                                                                                                  "N-myristoylation site"
                                                                                                                                                                                                                                "N-myristoylation site"
                                                                                                    "N-myristoylation site"
                                                                   "N-myristoylation site'
                                                                                                                                                                                                                                       560. .535
/note= "Transmembrane domain"
     "Transmembrane domain"
                                                                                    "Transmembrane domain"
                                                                                                                   'note= "Transmembrane domain"
                                                                                                                                                                  'note= "Transmembrane domain"
                                                                                                                                                                                                 'note= "Transmembrane domain"
                                                                                                                                                                                                                 "Transmembrane domain"
                    "Transmembrane domain"
                                                    "Transmembrane domain"
                                                                                                                                                                                                                                                                                                                                                                                                                              rice D, Pennica D, Polakis P, Szeto W;
                                                                                                                                                                                                                                                                                                                                                                            29-AUG-2000; 2000US-0228914P.
11-JAN-2001; 2001US-00759056.
10-JUL-2001; 2001US-00901812.
                                                                                                                                                                                                                                                                                                                                                              10-JUL-2001; 2001WO-US021635
                                                                                                                                                                                                                                                                    1
.247
/note= "W
                                                                                                                                                          .380
                                                                                                                                                                                        .451
                                                                                                                                                                                                        .489
                                                                                                                                                                                                                                                                                                        .667
                                                                                                                          .323
                                                                                                                                                                        .375
                                                                                                                                                                                                                          .531
                                                                                                                                                                                                                                                         .633
                                                                                                                                                                                                                                                                                         .646
                              .140
                                              .166
                                                                           .222
                                                                                                                                          341. .347
                                                                                                                                                                                                                                                                                                'note=
                                                                                                                                                   /note=
                                                                                                                                                                                                                                  note=
                                                                                                                                                                                                                                                                 'note=
                      'note=
                                      'note=
                                                      note=
                                                                      note=
                                                                                      note=
                                                                                                                                                                                                                  'note=
                                                                                                                                                                                                                                                                                                                                                                                                              (GETH ) GENENTECH INC
                                                                             207.
                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-292202/33.
N-PSDB; ABK47278.
                                                                                                                                                                                                                                                                                                                                WO200218608-A2
                                                                                                                                                                                                                                                                                                                                                07-MAR-2002
                                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                        Region
                                                                                                                                                           Domain
                                                                                                                                                                                           Domain
                                                                                                                                                                                                           Domain
                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                         Region
Domain
               Domain
                              Region
                                              Domain
                                                             Region
                                                                             Domain
                                                                                             Region
                                                                                                             Domain
                                                                                                                            Region
                                                                                                                                            Region
                                                                                                                                                                           Region
```

```
therapy, since selective enhancement of their expression by retinoid treatment relative to normal cells improves the efficacy and therapeutic index of cancer therapeutics directed against these antigens. Antibodies binding to the tumour antigens may be administered for the treatment of various disorders or conditions, including those characterised by overexpression and/or activation of the tumour antigens, where such conditions or disorders include benign or malignant tumours; leukaemias and lymphoid malignancies; neuronal, glial, astrocytal, hypothalamic and other glandular, macrophagal, epithelial, stromal and blastoccelic disorders. The present sequence represents the human Stras protein (PRO10282) which is selectively upregulated by retinoid using the method of the invention. The gene encoding the human Stras protein is located on human chromosome 15q23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               545 GQMDLSLLEPPRAATLDPGYYTYRNFLKIEVSGSHPAMTAFCSLLLQAQSLLPRTWAAPQD 604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           150 -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --- GOFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               103 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1110.5; DB 5;
Pred. No. 2.4e-106;
4; Mismatches 30; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABB05048 standard; protein; 667 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human NOV8c protein SEQ ID NO:32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 76.6
Matches 232; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 667 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABB05048;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
ABB05048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                             8 \frac{1}{2} 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

Human, NOVX; cytostatic; antidiabetic; ancrectic; antibacterial;

W fungicide; virucide; protozoacide; analgesic; antibacterial;

KW fungicide; virucide; protozoacide; analgesic; antiparkinsonian;

KW antiasthmatic; hypotensive; osteopathic; antidapressant; noctropic;

KW anticonvulsant; neuroleptic; gene therapy; vaccine; immune disease;

KW developmental disease; taste and scent detectability disorder; infection;

KW anticonvulsant; neuroleptic; gene therapy; vaccine; immune disease;

KW muchinal disease; feeding disorder; asthma; parkinson's disease; ulcer;

KW noninsulin-dependent diabetes mellitus; acute heart failure; hypotension;

KW multiple sclerosis; angina pectoris; myocardial infarction; delirium;

KW multiple sclerosis; angina pectoris; myocardial infarction; delirium;

KW multiple sclerosis; angina pectoris; myocardial infarction; delirium;

KW mever metal retardation; Huntington's disease; chromosome 15;

KW Gilles de la Tourette syndrome.

Homo sapiens

This invention relates to a novel method for selective enhancement of the expression of a protein in a tumour cell characterised by aberrant Wht signalling by treating the tumour cell with a retinoid. The method is useful for enhancing the efficacy of treatment of cancers characterised by aberrant Wht signalling, and for identifying tumour antigens the expression of which is selectively enhanced by retinoid treatment. The method is also useful in the early detection of tumours for early intervention. The tumour antigens are useful as targets for cancer

Example 1; Fig 2; 141pp; English.

WO200190155-A2

484

425 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI

544 203 604 263

LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMVATWRVLLSALYNAIHL

485 150

103

LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC-

664

SLRPGEEDEGMOLLQTKDSMAKGARPGASRGRARWGLAYTLLHNPTLQVFRKTALLGANG

266

AQP

264

204

ÁQP 667

545 GOMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD SLRPGEEDEGMQLLQTXDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG

-SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD

```
605
                                                                                                                                                                                                                            665
                                                                                                                                                                                                                                                                  RESULT 13
                                                                                                                                                                                                                                                                                AA019413
                                    ò
                                                              g
                                                                                        ò
                                                                                                                원
                                                                                                                                             8
                                                                                                                                                                       임
                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The proteins (1) have cytostatic, antidiabetic, anorectic, antibacterial, function describes human way proteins (1) have cytostatic, antidiabetic, antidiateric, antibacterial, functioned, protozoacide, analgesic, antiparkinsonian, antidiateric, antidiaterial antidiaterial antidiaterial antidiaterial antidiaterial antidiaterial antidiaterial antidiaterial antidiaterial motoropy, antidicer, anticonvulsant and neuroleptic activities. (1) and polymucleotides (II) can be used in gene therapy and vaccine production. (1) and (II) can be used for treating or preventing a NOWA-associated disorder such as cardiomyopathy, atherosclerosis and diabetes in a human, where the used for used for related to cell signal processing and metabolic path way modulation, in a subject, preferably human. (1) and (II) can be used for disonsers, preventing or treating developmental diseases, immune diseases, taste and scent detectability disorder, Burkitt's lymphoma, signal transduction pathway disorders, retinal diseases including those involving photoreception, cell growth rate disorders, feeding disorders, noninsulin-dependent diabetes mellitus, infections, pain, cancer, asthma, alsagias, aute heart failure, hypotension, hypotension, urinary retention, osteodystrophy, angina pectoris, ulcers, myocardial inferction, allergies, benign prostatic hypertrophy, manic depression, uningrom of disease or Gilles de la Tourette syndrome. The present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NOVX
                                                                                                                                                                                                                                                                                                                                                                                                Novel polypeptide, useful for treating pain, cancer, urinary retention, osteoporosis, Crchn's disease, diabetes, acute heart failure, dementia, asthma, ulcer, allergy and Huntington's disease, comprises isolated polypeptide NOVX.
                                                                                                                                                                                                                                                                                                                                 Taupier RJ, Gangolli E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            present invention describes human NOVX proteins (NOV1 to NOV9).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 5; Length 667;
                                                                                                                                                                                                                                                                                                                      Padigaru M;
                                                                                                                                                                                                                                                                                                                    Mishra V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.4e-106;
                                                                                                                                                                                                                                                                                                                                 Li L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65.5%; Score 1110.5; 76.6%; Pred. No. 2.4e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human NOV2a is isolated to chromosome 15
                                                                                                                                                                                                                                                                                                                    Tchernev VT,
Rastelli L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 106; 266pp; English.
                                                                                                                30-MAX-2000; 2000US-0207798P.
31-MX-2000; 2000US-0208453P.
02-UJN-2000; 2000US-0208831P.
05-UJN-2000; 2000US-0210060P.
20-UJN-2000; 2000US-0210060P.
26-UJL-2000; 2000US-021337P.
                                                                          2000US-0206688P.
2000US-0206829P.
2000US-0207748P.
                                                                                                                                                                                                                         19-JAN-2001; 2001US-0263135P.
24-JAN-2001; 2001US-0263688P.
                                                                                                                                                                                                              31-JUL-2000; 2000US-0221927P.
                                     24-MAY-2001; 2001WO-US017073
                                                                                                                                                                                                                                                     2001US-0263694P
                                                                                                                                                                                                                                                                  23-MAY-2001; 2001US-00863776
                                                                                                                                                                                                                                                                                                                   Majumder K,
Shenoy S,
                                                                                                                                                                                                                                                                                           CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                          2002-106174/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
les 232; Conserv
                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; ABA92669.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 667 AA;
                                                                            24-MAY-2000;
24-MAY-2000;
                                                                                                                                                                                                                                                                                                                                 Spaderna SK,
                                                                                                      30-MAY-2000;
                                                                                                                                                                                                                                                                                                                    Spytek KA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
```

```
New human molecules for disease detection and treatment (MDDT), useful for diagnosing, treating and preventing diseases or conditions associated with the aberrant MDDT expression, e.g. cancer, AIDS, asthma, diabetes,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to human proteins and coding sequences of molecules for disease detection and treatment MDDT. The sequences can be used in the treatment of diseases associated with the decreased
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       expression or overexpression of MDDT, such as cell proliferative (cancer,
                                                                                                                                                                                                             Human, molecule for disease detection and treatment; MDDT; gene therapy, cytostatic, antiatretioscalerotic; hepatotropic, anti-HIV; antiallergic; antiinflammatory; antiasthmatic; cerebroprotective; nootropic; neuroprotective; antiasthmatic; cardiant; antianginal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MG, Walia NK, Elliot VS, Xu Y;
JL, Gietzen KJ, Ison CH, Lu DAM;
Thangavelu K, Sanjanwala MM, Tang YT;
Swarnaker A, Azimzai Y, Sapperstein SK;
                                                                                                                                                          Human molecule for disease detection and treatment protein #16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Marquis JP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , Ding L, Gietzen K
i AR, Thangavelu K,
n JA, Swarnaker A,
Lu Y, Tran UK, Mē
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 148-150; 177pp; English.
AA019413 standard; protein; 667 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-0269618P.
2001US-0271118P.
2001US-0274486P.
2001US-0274436P.
2001US-0334229P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-FEB-2002; 2002WO-US003709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001US-0268117P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Yao MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-FEB-2002; 2002US-0353284P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (INCY-) INCYTE GENOMICS INC.
                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Yue H,
Ghandi A
Griffin J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lee EA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002-713453/77.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lal PG, Baughn MR,
Honchell CD, Yue H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; AAL49942
                                                                                                                                                                                                                                                                                                                                                                                                       WO200270709-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-FEB-2001;
23-FEB-2001;
07-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hafalia AJA,
                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-MAR-2001;
28-NOV-2001;
                                                                                                        10-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ramkumar J,
Burford N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hepatitis.
                                                  AA019413;
```

4

Gaps

37;

Indels

4; Mismatches

Conservative

424

42

---GOFSWILFS

43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102

365 CYISALVISCLITFIVLMRSIVTHRTNIRALHRGAALDISPLHRSPHPSRQAIFCWMSFS

1 CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD------

à 유 ò

```
12-AUG-2002; 2002US-00218631.
                                    Claim 11; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                             AOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                          264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABO33744;
                                                                                                                                                                                                                                                                                                                                               150
                                                                                                                                                                                                                                                                                                          103
                                                                                                                                                                                                                                                                                                                                                                                                                                             665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AB0337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                ò
atherosclerosis, hepatitis), autoimmune/inflammatory (e.g. AIDS, tablergies, Addison's disease, asthma), developmental (dwarfism, renal tubular acidosis), neurological (e.g. stroke, Parkinson's disease, epilepsy) and cardiovascular (congestive heart failure, myocardial infarction, angina pectoris) disorders. The present sequence is a protein of the invention
                                                                                                                                                                        102
                                                                                                                                                                                                              149
                                                                                                                                                                                                                                                                                        263
                                                                                                                                                                                                                                                                                                          664
                                                                                                                                               484
                                                                                                                                                                                                                                544
                                                                                                                                                                                                                                                   203
                                                                                                                                                                                                                                                                     604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; PRO polypeptide; secreted and transmembrane protein;
anti-PRO antibody; diagnostic assay; gene expression; tumour; cytostatic.
                                                                                                                                  42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Goddard A, Godowski PJ;
ohan JF, Watanabe CK, Wood WI;
                                                                                                                                                                                                                           545 GQMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD
                                                                                                                                                                                                                                                                                        SLRPGEEDEGMOLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG
                                                                                                                                                                                                                                                                                                 -SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                       425 AYQTAFICLGLLVQQIIFFIGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                              LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
                                                                                                                                  -----GOFSWNLFS
                                                                                                                                                                        VPLPLPPLAGLLVQQIIPFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           One hundred and twenty two nucleic acids encoding PRO polypeptides
                                                                                                               37;
                                                                                              DB 5; Length 667;
                                                                                                                Indels
                                                                                                                                   1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gerritsen ME, Goddard 1
Smith V, Stephan JF,
                                                                                            Score 1110.5; DB 5;
Pred. No. 2.4e-106;
4; Mismatches 30;
                                                                                                                                                                                                                                                                                                                                                                                                Ä.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUN-2001; 2001WO-US017800.
29-JUN-2001; 2001WO-US021066.
                                                                                            65.5%;
llarity 76.6%;
Conservative 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-AUG-2002; 2002US-00230163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-JUL-2000; 2000US-0220638P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2002US-00119480
                                                                                                                                                                                                                                                                                                                                                                                                ABU80778 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                     23-JUN-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human PRO polypeptide #40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Desnoyers L,
C, Gurney AL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Grimaldi JC, Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-342045/32.
                                                                                                      Best Local Similarity
Matches 232; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; ACA66880.
                                                                                                                                                                                                                                                                                                                               266
                                                                                                                                                                                                                                                                                                                                                 ÁQP 667
                                                                            Sequence 667 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US2003036635-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-FEB-2003
                                                                                                                                                                         43
                                                                                                                                                                                                                                 485
                                                                                                                                                                                                                                                    150
                                                                                                                                                                                                                                                                                                            605
                                                                                                                                                                                                                                                                                                                                                                                                                  ABU80778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Baker KP,
                                                                                                                                                                                                              103
                                                                                                                                                                                                                                                                                         204
                                                                                                                                                                                                                                                                                                                               264
                                                                                                                                                                                                                                                                                                                                                 665
                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                              RESULT 14
                                                                                                                                                                                           셤
                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                 8888888888
                                                                                                                                                                        8
                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                          ઠ
```

```
4
                                                                                                                                           The present invention relates to the isolation of novel human PRO polypeptides, and the polymucleotide sequences encoding them. The PRO polypeptides are secreted and transmembrane proteins. The PRO polypeptides and polymucleotides are useful for preparing a medicament useful in the diagnostic assays for PRO, by detecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural sources. ABUS0739-ABUS0860 from recombinant pRO polypeptides of the invention. Note: The sequence data for this patent was obtained in electronic format directly from the USPTO web site at seqdata.uspto.gov/psipBDIDEntry.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         204 SLRPGEEDEGMOLLOTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; secreted and transmembrane protein; PRO; cytostatic; antiarthritic; osteopathic; gene therapy; TNP-Agonist-Alpha; chondrocyte stimulator; fibroblast modulator; pharmaceutical; diagnostic; biosensor; bioreactor; tumour; lung tumour; oclon tumour; breast tumour; prostate tumour; rectal tumour; liver tumour; cartilage disorder; sports injury;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             425 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             365 CYISALVLSCLLTFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LQNMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
useful for the manufacture of a medicament for diagnosing or treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human secreted and transmembrane protein PRO10282.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 76.6%; Pred. No. 2.4e-106; Matches 232; Conservative 4; Mismatches 30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABO33744 standard; protein; 667 AA.
                                                                                        80; 314pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       arthritis; wound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 667 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2003045687-A1
```

```
Gerritsen ME, Goddard A, Godowski ÞJ;
Smith V, Stephan JF, Watanabe CK, Wood WI;
  01-JUN-2001; 2001WO-US017800.
29-JUN-2001; 2001WO-US021066.
09-APR-2002; 2002US-00119480.
                              Desnoyers L,
                     (GETH ) GENENTECH INC
                                           WPI; 2003-512315/48.
N-PSDB; ACD68632.
                                   Grimaldi JC,
                              Baker KP,
```

New genes, and its encoded secreted and transmembrane polypeptides, useful for stimulating Tumor Necrosis Factor alpha, or chondrocyte or pericyte proliferation, especially for treating lung tumors, arthritis or wounds in a mammal. Claim 11; Fig 80; 314pp; English

Sequence 667 AA;

```
424
                                                                                                                                 102
                                                                                                                                                                                                                                                                                                 604
                                                                                                                                                                                                                                                                                                                                                                   664
                                                                                                                                                                  425 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI 484
                                                                                                                                                                                                                            485 LÖNMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMVATWRVLLSALYNAIHL 544
                                                                                                                                                                                                                                                                                                                                  SLRPGEEDEGMOLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                 42
                                                                                                                                                                                                                                                                                       ::: PPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD
                                                                                                                                                                                                                                                                                                                                                       --GOFSWNLFS
                                                                                                                                 43 VPLPLPPLAGILVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                  150 -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                37; Gaps
 DB 6; Length 667;
                                                                                                                                                                                                  103 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC----
                                Indels
65.5%; Score 1110.5; DB 6; 76.6%; Pred. No. 2.4e-106; iive 4; Mismatches 30;
                                                                 1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD-
 Query Match
Best Local Similarity 76.6
Matches 232; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                   AQP 266
                                                                                                                                                                                                                                                                                                                                    204
                                                                                                                                                                                                                                                                                                                                                                                                   264
                                                                    ð
                                                                                                  요
                                                                                                                                   ò
                                                                                                                                                                  엄
                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

665 AQP 667 셤

8, 2005, 13:36:13 completed: February ne : 146.513 secs Search co

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM protein - protein search, using sw model

February Run on:

8, 2005, 13:30:00; Search time 38.4542 Seconds (without alignments) 630.905 Million cell updates/sec

US-09-816-653A-4 1695 Perfect score:

1 CYISALVLSCLLTFLVLMRS.....APPTWLWESQQGFWRKKLVG 325 Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

513545 segs, 74649064 residues Searched:

513545 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Issued Patents AA:*

1. /cgn2 6/ptodata/1/iaa/5A COMB.pep:*

2. /cgn2 6/ptodata/1/iaa/5B COMB.pep:*

3. /cgn2 6/ptodata/1/iaa/6A COMB.pep:*

4. /cgn2 6/ptodata/1/iaa/6B COMB.pep:*

5. /cgn2 6/ptodata/1/iaa/PCTUS COMB.pep:*

5. /cgn2 6/ptodata/1/iaa/PCTUS COMB.pep:*

5. /cgn2 6/ptodata/1/iaa/PCTUS COMB.pep:*

5. /cgn2 6/ptodata/1/iaa/PCTUS COMB.pep:* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	:	đó	ď	æ	Ø	li	li	l i	li	Αp	Αp	Ą	b]	Æ	Ø	A	App	Ø	11	p]	p]	li	p]	Ø	Ø	Ø	p]	Ø
	i !	274, App	3836,	18271,	9452,	, Appli	, App.	, App	ď	~	6947,		34, Appl	29468,	16752,		344, A	32497,			8, Appl	, App	18, Ap	24252,	12123,		41, Appl	10957,
	uoi					4	o o	, 12	4.										9	4	Ч							
	Description	Sequence	Sequence	Sequence	Seguence	Sequence	Sequence	Sequence	Sequence	Seguence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Seguence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence
SUMMARIES	в гр	4 US-09-205-258-274	4 US-09-252-991A-30836	4 US-09-252-991A-18271	4 US-09-252-991A-19452	3 US-09-634-920-4	4 US-09-514-907A-2	4 US-09-896-994-2	4 US-09-840-125-4	4 US-09-949-016-7472	4 US-09-949-016-6947	4 US-09-902-540-12884	4 US-08-714-741-34	4 US-09-252-991A-29468	4 US-09-252-991A-16752	-09-252	4 US-09-602-777A-344	4 US-09-252-991A-32497	3 US-08-866-381A-6	1 US-08-208-887A-49	3 US-09-280-598-18	4 US-08-945-771-4	-60-	4 US-09-252-991A-24252	4 US-09-489-039A-12123	-991A-	-09-393	4 US-09-949-016-10957
	n DB				~	9	9	· 6	9	~	9		` ~	,	ີ	4.	٠	rel	·· œ	-	-		r.	_	'n	6	6	60
	Length	8	157	726	42	201	2016	201	2016	127	2146	557	124	327	27	43	249	20	618	62	621	621	46	597	39	809	29	73
a	Query	26.0	5.8	5.6	5.5	5.5		5.5	5.5	5.4	5.4	5.3	5.3	5.3	5.3	5.3	5.3	5.2	5.1	5.1	5.1	5.1	5.1	5.1	5.0	5.0	5.0	5.0
	Score	440	98.5	94.5	93.5	93	93	93	93	92	92	90.5		O	89.5		89	88.5	87	87	87	87	86.5	98	85.5	85	84.5	84.5
	Result No.		7	n	4	ហ	9	7	80	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27

ce 32299, A	•	ce 17434, A	ce 7109, Ap	ce 41, Appl	٠ì	m	Ξ	H		228		ce 4728, Ap	2453		387,		387,	
Seguence	Sequence	Sequence	Sequence	Seguence	Sequence	Seguence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Seguence	Sequence	Sequence	Seguence	
US-09-252-991A-32299	US-09-489-039A-7581	US-09-252-991A-17434	US-09-949-016-7109	US-09-569-611C-41	US-09-868-572A-1	US-09-438-185A-37	US-09-036-987A-11	US-09-370-700-11	US-09-603-207-11	US-09-252-991A-22843	US-08-462-467B-12	US-09-134-000C-4728	US-09-252-991A-24536	US-09-562-737-84	US-08-469-260A-387	US-08-488-446-387	US-08-467-344A-387	
4	4	4	4	4	4	4	m	m	4	4	'n	4	4	4	4	4	4	
484	529	595	1395	922	971	526	539	539	539	1122	1495	216	344	1024	2972	2972	2972	
5.0	5.0	5.0	5.0	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	
84	84	84	84	83.5	83.5	83	83	83	83	83	83	82.5	82.5	82.5	82.5	82.5	82.5	
28	29	30	31	32	33	3.4	35	36	37	38	39	40	41	4	43	44	45	

0.4 0.4 4.4 4.4 4.4 0.4 4.4 0.0 0

ALIGNMENTS

```
PAPELICANT: Young et al.

TITLE OF INVENTION: 207 Human Secreted Proteins
CURRENT APPLICATION NUMBER: US/09/205,258
CURRENT PILING DATE: 1998-12-04
EARLIER PILING DATE: 1998-12-04
EARLIER FILING DATE: 1998-06-06
EARLIER PILING DATE: 1997-06-06
EARLIER PI
                                                                      ; Sequence 274, Application US/09205258
; Patent No. 6525174
; GENERAL INFORMATION:
RESULT 1
US-09-205-258-274
```

```
----TGRRPARPAATLAGPGSPPGCRPAAIP 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 4
US-09-252-991A-19452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 3
US-09-252-991A-18271
                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-252-991A-30836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-252-991A-18271
                                                                                                                                                                                                                                                                                                                                            LENGIH: 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180 MTAFCSLLLQAQSLLPRTMAAPQDSLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWG 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MTAFCSLLLQAQSLLPRTMAAPQDSLRPGEBDEGMQLLQTKDSWAKGARPGAXRGRARWG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26.0%; Score 440; DB 4; 100.0%; Pred. No. 2.3e-39; iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: (88)
OTHER INFORMATION: Xaa equals stop translation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240 LAYTLIHNPTLOVFRKTALLGANGAOP 266
                 EARLIER APPLICATION NUMBER: 60/048,970
EARLIER PILING DATE: 1997-06-06
EARLIER FILING DATE: 1997-06-06
EARLIER FILING DATE: 1997-06-06
EARLIER PILING DATE: 1997-06-06
EARLIER PELICATION NUMBER: 60/048,917
EARLIER PILING DATE: 1997-06-06
EARLIER PELICATION NUMBER: 60/048,917
EARLIER PELICATION NUMBER: 60/048,917
EARLIER PILING DATE: 1997-06-06
EARLIER PILING DATE: 1998-07-13
EARLIER PILING DATE: 1998-07-13
EARLIER PILING DATE: 1998-07-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 LAYTLIHNPTLQVFRKTALLGANGAQP
LING DATE: 1997-06-06
PLICATION NUMBER: 60/048,970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 274
LENGTH: 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.(
Matches 87; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: SITE
LOCATION: (88)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: SITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-205-258-274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

Sequence 30836, Application US/09252991A Patent No. 6551795

RESULT 2 US-09-252-991A-30836

```
Sequence 1821, Application US/09252991A

Patent No. 6517195
GENERAL INFORMATION:
APPLICANT: Marc J Rubenfield et al.
APPLICANT: Marc J Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;
TITLE OF INVENTION: ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.138
CURRENT APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
SEQ ID NO 18271
LENGTH: 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 19452, Application US/09252991A
Patent No. 6551795
GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
                                                AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             194 LPR - TMAAPQDSLRPGEEDEG - MQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPT 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              195 PRIMAAPQDSLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFR 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44; Indels 17;
APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATITIES OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ. ID NOS: 33142
SEQ. ID NOS: 33142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 5.6%; Score 94.5; DB 4; Length 726; Best Local Similarity 31.7%; Pred. No. 0.31; Matches 33; Conservative 10; Mismatches 44; Indels 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 5.8%; Score 98.5; DB 4; Length 157; Best Local Similarity 33.0%; Pred. No. 0.015; Matches 30; Conservative 6; Mismatches 26; Indels 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            250 LQVFRKTALLGANGAQPCSSLPGSPPSITPAMQPAGPPDHXGXV 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         325 ----RRVPLLPRAGLQPGGLPERQPGL-PRLDPGWPAVHQGPV 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 PAARRGCRDRARP------RPRRSPAPGARPGARRGRARHSTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 255 KTALLGANGAOPCSSL - PGSPPSITPAMOP 283
```

```
NUMBER OF SEQUENCES: 12
CORRESPONDENCE ADDRESS:
ADDRESSEE: WoodGOSK Washburn Kurtz Mackiewicz & No. 6567705ris LLP
STREET: One Liberty Place - 46th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        778 QQCWNIPD-----SIIVILSLMELGLSRMSNL---SVLRSFRLLRVFKLAKSWPTL 825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    130 AATFLLFPLNVLVGAMXXXCSPSIAIRHPTPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQ 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 190 AOSLLPRIWAAPODSLRPGEEDEGMOLLOTKDSWAKGARPGAXRGRARWGLAYTLL-HNP 248
35 OFSWILFSVPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFW 94
                                                             190 AQSLLPRIMAAPQDSLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLL-HNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            826 NTLIKIIGNSVGALGNLTLVLAIIVFIFAVVGMQLFGKNYSELRDSDSGLLPRWHMMDFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        70;
                                                                                                                                                                                                                                                                                                                                                                                 JOS, e Morissette
TITLE OF INVENTION: SYSTEMS FOR ENHANCING CARDIAC SIGNAL
SENSING BY CARDIAC PACEMAKERS THROUGH
GENETIC TREATMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5.5%; Score 93; DB 4; Length 2016; 23.8%; Pred. No. 1.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 23.8%; Pred. No. 1.8;
Matches 67; Conservative 31; Mismatches 113; Indels
                                                                                                                                                  249 TLQVFRKTALLGANGAQP-CSSLPGSPPSITPAMQPAGPPD 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Paul K. Legaard
REGISTRATION NUMBER: 38 534
REPERENCE/DOCKET NUMBER: MEDT-0029/P-3586
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>--</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/09/514,907A FILING DATE: 08-Feb-2000 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: unknown
SEQUENCE DESCRIPTION: SEQ ID NO: 2:
                                                                                                                                                                                         990 ----OKPAALAAQGOLPSCIATPYSPP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: (215) 568-3100
TELEFAX: (215) 568-3439
                                                                                                                                                                                                                                                         RESULT 6
US-09-514-907A-2
; Sequence 2, Application US/09514907A
; Patent No. 6567705
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: WordPerfect 6.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 2016 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Kenneth B. Stokes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: U.S.A.
ZIP: 19103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-514-907A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                       ద
                                                                  ò
                                                                                                                                                  ò
                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         135 LFPLNVLVGAMXXXCSPSIAIRHPTPGYYTYRNFLKIEVSQSHP-AMTAFCSLLLQAQSL 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -----RAR 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            826 NTLIKIIGNSVGALGNLTLVLAIIVFIFAVVGMQLFGKNYSELRDSDSGLLPRWHMMDFF 885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     130 AATFLLFPLNVLVGAMXXXCSPSIAIRHPTPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQ 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    238 WGLAYTLLHNPTLQVFRKTALLGANGAQPCSSLPGSPPSITPAMQPAGPPDHXGXVEVCL 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              218 NGNAY---HQSHISIHTASS------HHLPGGAPCLTPSSTPAVSPTTIGSCTPCC 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Splawski, Igor
APPLICANT: Splawski, Igor
APPLICANT: Splawski, Igor
APPLICANT: Securing, Mark F.
TITLE OF INVENTION: ALTERATIONS IN THE LONG OT SYNDROME GENES KVLQT1 AND
TITLE OF INVENTION: SCNSA AND METHODS FOR DETECTING SAME
FILE REFERENCE: 2323-155
CURRENT APPLICATION NUMBER: 60/190,057
PRIOR APPLICATION NUMBER: 60/190,057
PRIOR APPLICATION NUMBER: 60/190,057
PRIOR APPLICATION NUMBER: 60/147,488
PRIOR APPLICATION NUMBER: 60/147,488
PRIOR APPLICATION NUMBER: 60/147,488
PRIOR FILING DATE: 1999-08-09
NUMBER OF SEQ ID NOS: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                   35 OFSWILLPSVPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLPFRSLESSWPFW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ---LTLALAVILQNMAAHWV----FLETHDGHPQLTNR---RVLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70;
        AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                                                                                                                                                                            Length 422;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ed. No. 1.8;
Mismatches 113; Indels
                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                194 LPRTMAAPODSLRPGEEDEGMOLLOTKDSMAKGARPGAXRG-
                                                                                                                                                                                                                                                                                                                                                                      73;
                                                                                                                                                                                                                                                                                                                            5.5%; Score 93.5; DB 4; 23.8%; Pred. No. 0.19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 5.5%; Score 93; DB 3; Similarity 23.8%; Pred. No. 1.8;
                 CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
FRIOR APPLICATION NUMBER: US 60/074,788
PRIOR PILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-02-18
PRIOR FILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
                                                                                                                                                                                                                                                                                                                                                                      14; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                   129 LIPLGCFVPLVSILCHRRLRNAKPRSG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        298 HWEPXXGSAPPTWLWESOQGFW 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  265 -WMRKAGSCSPTW----YGCW 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4, Application US/09634920 Patent No. 6342357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31;
                                                                                                                                                                                                                                                              ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                            Query Match 5.5%
Best Local Similarity 23.8%
Matches 48; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                      US-09-252-991A-19452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -09-634-920-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-634-920-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE:
SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                        吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
```

셤 ò 셤

```
Sequence 742. Application US/09949016
; Sequence 742. Application US/09949016
; Patent No. 681239
; GENERAL INFORMATION:
    APPLICANT: VENTER, J. Craig et al.
    TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
    TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
    TITLE OF INVENTION: WIMBER: US/09/949,016
    CURRENT APPLICATION NUMBER: 60/241,755
    PRIOR APPLICATION NUMBER: 60/241,755
    PRIOR PLING DATE: 2000-10-20
    PRIOR PELING DATE: 2000-10-20
    PRIOR PELING DATE: 2000-10-09
    PRIOR PELING DATE: 2000-10-09
    PRIOR PELING DATE: 2000-09-08
    NUMBER OF SEQ ID NOS: 207012
; SEQ ID NO 7472
                                                                                                                                                                                                                                                                                GENERAL INFORMATION:

APPLICANT: Splawski, Igor
APPLICANT: Splawski, Igor
APPLICANT: Splawski, Igor
TITLE OF INVENTION: ALTERATIONS IN THE LONG QT SYNDROME GENES KVLQT1 AND
TITLE OF INVENTION: SCN5A AND METHODS FOR DETECTING SAME
FILE REPERENCE: 2323-155
CURRENT APPLICATION NUMBER: US/09/840,125
CURRENT PILING DATE: 2001-04-24
PRIOR PILING DATE: 2000-08-09
PRIOR APPLICATION NUMBER: 60/147,488
PRIOR APPLICATION NUMBER: 60/147,488
PRIOR PILING DATE: 1999-08-09
NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             826 NTLIKIIGNSVGALGNLTLVLAIIVPIFAVVGMQLFGKNYSELRDSDSGLLPRWHMMDFF 885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  130 AATFLLFPLNVLVGAMXXXCSPSIAIRHPTPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQ 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            886 HAFLIIF--RILCGEWIETMWDCMEVSGQS---LCLLVFLLVWVIGNLVVLNLFLALLLS 940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  190 AQSLLPRTMAAPQDSLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLL-HNP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S41 SFS-----ADNITAPDEDREMNNLQL--ALARIQRGIRFVKRITWDFCCGLIRHRP 989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35 OFSWILFSVPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----LTLALAVILQNMAAHWV-----FLETHDGHPQLTNR----RVLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5.5%; Score 93; DB 4; Length 2016; 23.8%; Pred. No. 1.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----PPE 1015
                                      -PPE 1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          249 TLQVFRKTALLGANGAQP-CSSLPGSPPSITPAMQPAGPPD 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31; Mismatches 113;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-840-125-4; Sequence 4, Application US/09840125; Patent No. 6787309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 5.5%
Best Local Similarity 23.8%
Matches 67; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95
                                                  990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Ken Stokes
APPLICANT: Ken Stokes
Jos e Morissette
Jos e Morisse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSER: Woodcock Washburn Kurtz Mackiewicz and No. 6665563ris
STREET: One Liberty Place - 46th Floor
CITY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----LTLALAVILQNMAAHWV-----FLETHDGHPQLTNR---RVLY 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         130 AATFLLFPLNVLVGAMXXXCSPSIAIRHPTPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQ 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     190 AQSLLPRTMAAPQDSLRPGEEDEGMQLLQTXDSMAKGARPGAXRGRARWGLAYTLL-HNP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           941 SFS------ADNLTAPDEDREMNNLQL--ALARIQRGLRFVKRTTWDFCCGLLRHRP 989
               941 SFS------ADNLTAPDEDREMNNLQL--ALARIQRGLRFVKRTTWDFCCGLLRHRP 989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35 OFSWILFSVPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFW 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 5.5%; Score 93; DB 4; Length 2016; Best Local Similarity 23.8%; Pred. No. 1.8; Matches 67; Conservative 31; Mismatches 113; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        249 TLQVFRKTALLGANGAQP-CSSLPGSPPSITPAMQPAGPPD 288
                                                                                             249 TLQVFRKTALLGANGAQP-CSSLPGSPPSITPAMQPAGPPD 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: «Unknown»
ATTORNEY/AGENT INFORMATION:
NAME: Paul K. Legaard:
REGISTRATION NUMBER: 38,534
REGISTRATION NUMBER: 38,534
TELECOMMUNICATION INFORMATION:
TELEFAX: (215) 568-3100
TELEFAX: (215) 568-3439
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/896,994
FILING DATE: 02-Jul-2001
CLASSIFICATION: <UNKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WordPerfect 6.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/514,907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: unknown SEQUENCE DESCRIPTION: SEQ ID NO: 2: US-09-896-994-2
                                                                                                                                                                   990 ----QKPALAAQGQLPSCIATPYSPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 2016 amino acids
                                                                                                                                                                                                                                                                                                                                                      Sequence 2, Application US/09896994 Patent No. 6665563 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                          US-09-896-994-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95
```

엄 ò 셤 ò

à

ò

셤

음 8 g ઠે 유 ઠે 셤 ઠ

8

```
Tart, Rebecca
Brooks-Walter, Alexis
Brooks-Walter, Alexis
FORTIONS THEREOF,
FORTION: EXPRESSION PRODUCTS THEREFROM, AND USES OF SUCH GENES,
FENTION: PORTIONS AND PRODUCTS
1653 CINLFIGINGSMATFVLELFSDQKLQEVSR--ILKQVFLIFPHFCLGRGLIDMVRNQAMA 1710
                                                                                                                                                                                                                                                                1768 --LLGEEDE--DVARERERVVQGATQGDVLVLRNLTKVYRGQRMPAVDRLCLGIPPGECF 1823
                                                                                                           DAFERLGDRQFQSPLRWEVVGKNLLAMVIQGPLFLLF-TLLLQHRSQLLFQPRVRSLP-- 1767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60 FFLGTTAL--AFLVLMPVLHGRNLLFFRSLESSWP---FWLTLALAVILONWAAHW--VF 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   242 AAQLATSILILLAPMAMLVTWALGRAĞRVRLSACKG----LSSRPFPLGRARGLV---- 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           292 --iGAVSMTAAVLVLLPL----GAILLTSLQRSFGAALTWETLTL-----THWAGVL 337
                                                                                                                                                                                                         204 SLRPGEEDEGMQLLQTKDSMAKGARPG------AXRGRARWGLAYTLLHNPTLQVF 253
                                                                     --PAMTAFCSLLLQAQSLL---PRIMAAPQD 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Slater, Steven C.
APPLICANT: Wiegand, Roger C.
TITLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof FILE REFERENCE: 38-10(15849)B
CURRENT FILING DATE: 2001-07-10
PRIOR APPLICATION NUMBER: US/09/902,540
PRIOR APPLICATION NUMBER: 60/217,883
PRIOR FILING DATE: 2000-07-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5 ALVLSCLLTFLVLMRSLVTHRLGSGG-----SGDGOFSWNLFSVPLPPLAGLLVQQII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 557;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             52; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             113 LETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXCSPSIA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      338 LEPRILH--ATGRSVLLAA------GAGVLVCGLGLA 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 5.3%; Score 90.5; DB Best Local Similarity 30.9%; Pred. No. 0.58; Matches 50; Conservative 11; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Curtis, Morris & Safford, P.C.
                                                                            155 IRHPTPGYYTYRNFLKIEVSQSH----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 12884, Application US/09902540
Patent No. 6833447
GENERAL INFORMATION:
APPLICANT: Goldman, Barry S.
APPLICANT: Hinkle, Gregory J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 34, Application US/08714741 Patent No. 6500613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Yother, Janet
Crain, Marilyn J.
Hollingshead, Susan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Briles, David E.
McDaniel, Larry S.
Swiatlo, Edwin
                                                                                                                                                                                                                                                                                                                                                                                                           1824 ---GLLGVNGAGKTST 1836
                                                                                                                                                                                                                                                                                                                                                254 RKTALLGANGAOPCSS 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: Myxococcus xanthus US-09-902-540-12884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 16825
SEQ ID NO 12884
LENGTH: 557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: EXP
TITLE OF INVENTION: EXP
TITLE OF INVENTION: POR
NUMBER OF SEQUENCES: 47
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 11
US-09-902-540-12884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-714-741-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
                                                                                                                                                 1711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                               ò
                                                                                                                                          엄
                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 6947, Application US/09949016

Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, D. Craig et al.
APPLICANT: VENTER D. CRAIGNER D. 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1534 VDVLVSICVVFAMSFVPASFTLVLIEERVTRAKHLQLMGGLSPTLYWLGNFLWDMCNYLV 1593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1594 PACIVVLIFLAFQQRA-YVAPANLPALLLLLLLYGWSITPLMYPASFFFSVPSTAYVVLT 1652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -LALAVILONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVL-VGAMXXXCSPSIA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DAFERLGDRQFQSPLRWEVVGKNLLAMVIQGPLFILF-TLLLQHRSQLLPQPRVRSLP-- 893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |||||| : : : : : | | : | | : | -LLGEEDE--DVARERERVVQGATQGDVLVLRNLTKVYRGQRMPAVDRLCLGIPPGECF 949
                                                                                                                                                                                                                                                                                                                                                              97 -LALAVILQNWAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVL-VGAMXXXCSPSIA 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44 PLPLPPLAGLIVQQIIFFLGTTALAFLVLMPVLHGRNLL-----FFRSLESSWPFWLT 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 ISALVLSCL---LTF-----LVLMRSLVT---HRLGSGGSGD-----GQFSWNL--FSV 43
                                                                                                                                                                                                                                                                                                                     3 ISALVLSCL---LTF-----LVLMRSLVT---HRLGSGGSGD-----GQFSWNL--FSV 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                        44 PLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLL-----FFRSLESSWPFWLT 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                155 IRHPTPGYYTYRNFLKIEVSQSH-----PAMTAFCSLLLQAQSLL---PRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             204 SLRPGEEDEGMOLLOTKDSMAKGARPG-----AXRGRARWGLAYTLLHNPTLQVF
                                                                                                                                                                                                                                                      62; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 4; Length 2146;
                                                                                                                                                                                        DB 4; Length 1272;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Pred. No. 2.5;
48; Mismatches 126; Indels
                                                                                                                                                                                        ; Score 92; DB 4; Length 127;
; Pred. No. 1.2;
48; Mismatches 126; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILE REFERENCE LUOJUSO,
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
SOFTWARE: PESEZZ OF 10 NCS: 207012
SOFTWARE: PESEZZ OF WINDOWS Version 4.0
SOFTWARE: 2146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ||| ||| ||:
---GLLGVNGAGKTST 962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        254 RKTALLGANGAQPCSS 269
                                                                                                                                                                                        5.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80; Conservative
                                                                                                                                                                                                                                                          80; Conservative
                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 80; Conserv
                        LENGTH: 1272
TYPE: PRT
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-949-016-6947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-949-016-6947
                                                                                                    ; OKGANISM: numa.
US-09-949-016-7472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          950
                                                                                                                                                                                                                                                          Matches
```

엄

8

g

ઠે

ò

101

80

161

```
APPLICANT: MATC J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR APPLICATION NUMBER: US 60/094,190
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 16752
LENGTH: 275
                                                                                                                                                                                                                                                                                                                                                                                                                 ----AVHHSVQR 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMAKGARPGAXRGRARWGLAYTLLH------NPTLQVFRKTALLGANGAQPCSSLPG 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQDSLRPGEEDEGMQLLQTKDSMAKGA 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        228 RPGAXR-GRAR----WGLAYTLIHNPTLQVFRKTA-----LLGANGAQPC----SSLP 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92 RAGSSRCASARAWRCW------RASRSAAACCNCSVLGATCSQPCSPSSSAVP 139
                                                                                                                                                                                                                                                                                                                   21 SSGGPTMQFFLRYAYAPLFWSGFIGLATWQVGYRQASHAWLVALFLGALGLSFLABRRLP
                                                                                                                                                                                                                                                                                                                                                                                 72 ------EPRSLESSWPFWLTLALAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            102 ILQNMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXCSPSIAIRHPTPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        162 YYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQDSLRPGEEDEGMQLLQTKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                      96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               58; Indels 49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 275;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GSPPS-ITPAMQPAGPPDHXGXVEVCLHWEPXXGSAPPTWLWESQQ 316
                                                                                                                                                                                       5.3%; Score 90; DB 4; Length 327;
21.9%; Pred. No. 0.32;
tive 27; Mismatches 126; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         141 VLADLGITLVHYASH-------RSALLWRLH---
                                                                                                                                                                                                                                                                                     28 SGGSGDGOFSWNLFSVPLPPLAGLLVQQ------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Score 89.5; D
; Pred. No. 0.28
16; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           51 FMKTNSVRSRPTPSAPSSTARAAPAVSPR----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 16752, Application US/09252991A
Patent No. 6551795
GENERAL INFORMATION:
APPLICANT: Marc J. Rubenfield et al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TDMGI -- GDOPDYPRDYAG 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     273 SPPSITPAMQPAGPPDHXG 291
                                                                                              TYPE: PRT ORGANISM: Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pseudomonas aeruginosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 25.9%;
Matches 43; Conservative 16
PRIOR FILING DATE: 1998-07-27
NUMBRS OF SEQ ID NOS: 33142
SEQ ID NO 29468
LENGTH: 327
                                                                                                                                                                                                                                        70; Conservative
                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                          US-09-252-991A-29468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Pseudo
US-09-252-991A-16752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      272
                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
US-09-252-991A-29468
US-09-252-991A-29468, Application US/09252991A
Sequence 29468, Application US/09252991A
Sequence 29468, Application US/09252991A
Sequence 29468, Application US/09252991A
GENERAL INFORMATION:
TITLE OF INVENTION: AUGUSTIC ACID AND AMINO ACID SEQUENCES RELATING TO PSEUDOMONAS;
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
FILLE REPRENCE: 107196.13 6
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      959 LGLYLEGLGLALAILEALATHRLYSLYSALAGLLEGLLYST-------HRGLNL 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1006 YSGLLEASPALAALALEASNGLLEGLYPRASPGLYASPGLGLGLTHRPRALAPRALAPRG 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----LQTKDSMAKGARPGAXRG-RARWGLAYTLLHNPTLQVFRKTALLG 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----RSLESSWPFWLTLALAVILQNMAAHWVFLE 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              845 AALAGIALAGLILEASNGLLYSVALGLALALEGLNASNGLNVALALAGLLEGLGLG--LLE 902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              115 TH-----DGHPQLTNRRVLYAATFLLFPL------NVLVGAMXXXCSPSIAIRHPTPG 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          903 SERLYSLEGLASPASNLELYSASPALAGLTHRASNASNVALG----LASPTYRILELYSG 958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7 VLSCLLTFLVLMRSLVTHRL-GSGGSGDGQFSWNLFSVPLPLPPLAGLLVQQIIFF-LGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         162 YYTYRNFLK----IEVSOSHPAMTAFCSLLLQAQSLLPRTMAAPQDSLRPGEEDEGMQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5.3%; Score 90.5; DB 4; Length 1241; 23.8%; Pred. No. 1.7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                              COMPUTER: Floppy Gibb.
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/714,741
FILING DATE: 16-SEP-1996
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Frommer Esq., William S.
REFERENCE/DOCKET NUMBER: 25,506
REGISTRATION NUMBER: 25,506
REGISTRATION NUMBER: 25,506
REGISTRATION NUMBER: 25,506
REFERENCE/DOCKET NUMBER: 454312-2460
TELEFORMUNICATION INFORMATION:
TELEFAX: (212) 840-3333
INFORMATION FOR SEQ ID NO: 34:
SEQUENCE CHARACTERISTICS:
LENGTH: 1241 amino acids
TYPE: amino acid
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1066 LNPRGLLYSPRALAGLGLPRGLASNPRALAPRALAP 1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   261 AN-----GAQPCSSLPGSPPSITP-AMQP 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     37; Mismatches 138;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65 TALAFLVLMPVLHGRNLLFF---
    530 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 23.8%
Matches 80; Conservative
                                                                                              ZIP: 10036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                           New York
New York
                                                                          u.s.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     217 -----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-714-741-34
                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
RESULT 15

US-09-252-991A-30855

US-09-252-991A-30855

Sequence 30855, Application US/09252991A

Patent No. 6551795

GENERAL INFORMATION:

APPLICATION:

TITLE OF INVENTION:

ARRUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS

CURRENT APPLICATION NUMBER: US 60/074,788

PRIOR FILING DATE: 1999-02-18

PRIOR FILING DATE: 1998-02-18

PRIOR FILING DATE: 1998-07-27

NUMBER OF SEQ ID NOS: 33142

SEQ ID NO 30855

LENGTH: 434

COURTENT WAS THE TAXABLE OF THE OFFICE OFFI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             104 QNWAAHWVF-LETHDGHPQ-----LTNRRVLYAATFLLFPLNVLVGAMXXXCSPSIAIR 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   157 HPTPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQDSLRPGEEDEGMQL 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          217 LQTKDSMAKGARPGAXRGRAR---WGLAYTLLHNPTLQVFRKTALLGANGAQPCSSLPGS 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ----FRELDRTVANARHPDYPAPAP 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       80; Indels 59; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 5.3%; Score 89.5; DB 4; Length 434; Best Local Similarity 25.7%; Pred. No. 0.53; Matches 53; Conservative 14; Mismatches 80; Indels 53
140 GSRPSTAAPAQTNAGMPRARAMIALCEVAPPRAVRMPAT-RWASRR 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99 LLPMDGM-----GHRSLLKVIYWGIVY----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Search completed: February 8, 2005, 13:42:12 Job time : 40.4542 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     274 PPSITPAMOPAGPPDHX-GXVEVCLH 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-30855
                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

This Page Blank (uspto)

```
RESULT 1
                                                                                                                                                                                                             February 8, 2005, 13:32:20; Search time 108.54 Seconds (without alignments) 975.246 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CYISALVLSCLLTFLVLMRS.....APPTWLWESQQGFWRKKLVG 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Published Applications AA:*

1: /cgn2_6/ptodata/2/pubpaa/USO7_PUBCOMB.pep:*
2: /cgn2_6/ptodata/2/pubpaa/USO6_NEW_PUB.pep:*
4: /cgn2_6/ptodata/2/pubpaa/USO6_NEW_PUB.pep:*
4: /cgn2_6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*
5: /cgn2_6/ptodata/2/pubpaa/USO6_PUBCOMB.pep:*
6: /cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*
7: /cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*
8: /cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*
9: /cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*
10: /cgn2_6/ptodata/2/pubpaa/USO8_PUBCOMB.pep:*
11: /cgn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*
11: /cgn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*
13: /cgn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*
14: /cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*
15: /cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*
16: /cgn2_6/ptodata/2/pubpaa/USIOB_PUBCOMB.pep:*
17: /cgn2_6/ptodata/2/pubpaa/USIOB_PUBCOMB.pep:*
18: /cgn2_6/ptodata/2/pubpaa/USIOB_PUBCOMB.pep:*
19: /cgn2_6/ptodata/2/pubpaa/USIOB_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1373511
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1373511 seqs, 325702437 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                            OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                             US-09-816-653A-4
1695
                                                                                                                                                                                                                                                                                                                                                                         Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database
                                                                                                                                                                                                                            Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Description	Sequence 4, Appli	Sequence 69, Appl	Sequence 2306, Ap	Sequence 2, Appli	Sequence 2, Appli	Sequence 32, Appl	Sequence 67, Appl	Sequence 80, Appl					
	ID	US-09-816-653A-4	US-09-863-776-69	US-10-104-047-2306	US-09-759-056-2	US-09-901-812-2	US-09-863-776-32	US-09-863-776-67	US-10-227-884-80	US-10-230-163-80	US-10-230-338-80	US-10-218-631-80	US-10-230-414-80	US-10-232-224-80
	DB	10	10	15	σ	6	10	10	14	14	14	14	14	14
	Query Match Length DB	325	260	599	667	667	667	667	667	667	667	667	667	667
de	Query Match	99.1	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
	Score	1679	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5
	Result No.		7	٣	4	S	ø	7	8	σ	10	11	12	13

NAME/KEY: MISC_FEATURE

	-			Appl		-	-			Appl				Appl	-		Appl								Appl				Appl		Appl
80,	80,	80,	89	80,	80,	80,	80,	80,	80,	80,	80,	80,	80,	80,	80,	80,	80,	80,	80,	80,	80,	80,	80	80	80,	80,	80,	80,	80,	80	80,
Seguence	Sequence	Seguence	Seguence	Sequence	Sequence	Seguence	Seguence	Sequence	Sequence	Sequence	Seguence	Seguence	Seguence	Seguence	Sequence	Sequence	Sequence	Sequence	Seguence	Sequence	Seguence	Seguence	Seguence	Sequence	Sequence	Seguence	Sequence	Sequence	Sequence	Seguence	Sequence
US-10-216-159A-80	18-849-	US-10-227-873-80	-12	119-0	230	-219-		US-10-219-464-80	219	-219	US-10-219-481-80	US-10-230-260-80	US-10-232-231-80	US-10-232-233-80	US-10-216-165-80)-218-9)-219-4	-219-	0-219-	_	US-10-219-072-80	0 - 219	US-10-219-474-80	0-219-	4	0-227-	0-227-88	0-227-8	-436-	0-232-22	US-10-232-225-80
14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
667	667	667	667	667	667	667	667	667	667	667	667	667	667	. 199	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667	667
65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5	65.5
1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5	1110.5		1110.5
14	15	16	17	18	19	20	21		23	24		26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

RESOUL I		
US-09-816-653A-4		
; Sequence 4, Application US/09816653A		
; Publication No. US20030021788A1		
GENERAL INFORMATION:		
; APPLICANT: Rastelli, Luca		
, APPLICANT: Pennica, Diane		
; TITLE OF INVENTION: NOVEL HUMAN STRAG-LIKE PROTEIN AND NUCLEIC ACIDS ENCODING THE SAL	ACIDS ENCODING THE	SA
; FILE REFERENCE: 10716/57		
CURRENT APPLICATION NUMBER: US/09/816,653A		
CURRENT FILING DATE: 2001-03-23		
PRIOR APPLICATION NUMBER: 60/191,532		
PRIOR FILING DATE: 2000-03-23		
NUMBER OF SEQ ID NOS: 7		
SOFTWARE: Patentin version 3.1		
SEO ID NO 4		
LENGTH: 325		
TYPE: PRT		
ORGANISM: Homo sapiens hSTRA6 polypeptide fragment, carboxy terminus	cerminus	
FEATURE:		
; NAME/KEY: MISC FEATURE		
, OTHER INFORMATION: Xaa represents any amino acid, other, or unkown	ınkown	
; NAME/KEY: MISC_FEATURE		
	•	
; OTHER INFORMATION: Xaa represents any amino acid, other, or unkown	nkown	
; NAME/KEY: MISC_FEATURE		
, OTHER INFORMATION: Xaa represents any amino acid, other, or unkown	ınkown	
, NAME/KEY: MISC_FEATURE		
	•	
, OTHER INFORMATION: Xaa represents any amino acid, other, or unkown	nkown	
; NAME/KEY: MISC_FEATURE		
	,	
; OTHER INFORMATION: Xaa represents any amino acid, other, or unkown	ınkown	

```
43 VPLPLPPLAGLIVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             204 SLRPGEEDEGMOLLOTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  318 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               103 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  150 -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 560;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 2306, Application US/10104047

Publication No. US20030236392A1

GENERAL INFORMATION:
FAPLICANT: HELIX RESERVE INSTITUTE
TITLE OF INVENTION: No. US20030236392A1e1 full length cDNA
FILE REFERENCE: H1-A0105
CURRENT APPLICATION NUMBER: US/10/104,047
CURRENT APPLICATION NUMBER:
FRIOR APPLICATION NUMBER:
FRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1110.5; DB 15; Lengt
Pred. No. 3.7e-95;
4; Mismatches 30; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1110.5; DB 10;
Pred. No. 3.4e-95;
4; Mismatches 30; II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD
              PRIOR FILING DATE: 2000-07-20
PRIOR APPLICATION NUMBER: 60/221,337
PRIOR FILING DATE: 2000-07-26
PRIOR APPLICATION NUMBER: 60/221,927
PRIOR PILING DATE: 2000-07-31
PRIOR PRIOR DATE: 2000-07-31
PRIOR PILING DATE: 2001-01-19
PRIOR APPLICATION NUMBER: 60/263,688
PRIOR FILING DATE: 2001-01-24
PRIOR APPLICATION NUMBER: 60/263,694
PRIOR PILING DATE: 2001-01-24
NUMBER OF SEQ ID NOS: 155
SOFUMARE: PARCHELING DATE: 2001-01-24
NUMBER OF SEQ ID NOS: 155
LENGTH: 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65.58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 76.6%;
Matches 232; Conservative 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS: 4096; SOFTWARE: Patentin Ver. 2.1; SOFTWARE: Patentin Ver. 2.1; LENGTH: 599; TYPE: PRT; CAPALISM: Homo sapiens US-10-104-047-2306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 76.6
Matches 232; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo sapiens
US-09-863-776-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                264 AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                558 AQP 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-104-047-2306
                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             . 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                          61 FLGTTALAFLVILMPVLHGRNLLFFRSLESSWPFWLTLALAVILONMAAHWVFLETHDGHP 120
                                                                                                                                                                                                                                                                                                                     61 FLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVILQNMAAHWVFLETHDGHP 120
                                                                                                                                                                                                                                                                                                                                                                                      121 QLTNRRVLYAATFLLFPLNVLVGAMXXXCSPSIAIRHPTPGYYTYRNFLKIEVSQSHPAM 180
                                                                                                                                                                                                                                                                                                                                                                                                                    121 QLTNRRVLYAATFLLFPLNVLVGAMXXXCSPSIAIRHPTPGYYTYRNFLKIEVSQSHPAM 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 TAFCSLLLQAQSLLPRTMAAPQDSLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 AYTLIHNPTLQVFRKTALLGANGAQPCSSLPGSPPSITPAMQPAGPPDHXGXVEVCLHWE 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 AYTLLHNPTLQVFRKTALLGANGAQPCSSLPGSPPSITPAMQPAGPPDHXGXVEVCLHWE 300
                                                                                                                                                                                                                         1 CYISALVLSCLLTFLVLMRSLVTHRLGSGGSGDGQFSWNLFSVPLPLPPLAGLLVQQIIF 60
                                                                                                                                                                                           1 CYISALVLSCLLTFLVLMRSLVTHRLGSGGSGDGQFSWNLFSVPLPLPPLAGLLVQQIIF
                                                                                                                                                Gaps
; LOCATION: (303)...(303); OTHER INFORMATION: Xaa represents any amino acid, other, or unkown US-09-816-653A-4
                                                                                                                                              ö
                                                                                         Query Match 99.1%; Score 1679; DB 10; Length 325; Best Local Similarity 100.0%; Pred. No. 1e-148; Matches 325; Conservative 0; Mismatches 0; Indels 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 PXXGSAPPTWLWESQQGFWRKKLVG 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 PXXGSAPPTWLWESQQGFWRKKLVG 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT FILING DATE: 2001-05-23
PRIOR APPLICATION NUMBER: 09/540,763
PRIOR PILING DATE: 2000-03-30
PRIOR APPLICATION NUMBER: 60/206,679
PRIOR PILING DATE: 2000-05-24
PRIOR FILING DATE: 2000-05-24
PRIOR FILING DATE: 2000-05-24
PRIOR FILING DATE: 2000-05-30
PRIOR PILING DATE: 2000-05-30
PRIOR PILING DATE: 2000-05-30
PRIOR PILING DATE: 2000-05-30
PRIOR FILING DATE: 2000-05-30
PRIOR FILING DATE: 2000-05-30
PRIOR PILING DATE: 2000-05-30
PRIOR FILING DATE: 2000-05-30
PRIOR PILING DATE: 2000-05-30
PRIOR PILING DATE: 2000-05-30
PRIOR PILING DATE: 2000-05-05
PRIOR PILING DATE: 2000-05-05
PRIOR PILING DATE: 2000-05-05
PRIOR FILING DATE: 2000-05-05
PRIOR FILING DATE: 2000-05-05
PRIOR FILING DATE: 2000-06-05
PRIOR PILING DATE: 2000-06-05
PRIOR PILING DATE: 2000-06-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 69, Application US/09863776
Publication No. US20030198953A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Spytek, Kimberly A
APPLICANT: Majumder, Kumud
APPLICANT: Tolernev, Velizar T
APPLICANT: Mishra, Vishnu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-863-776-69
```

g

à

d ò 셤 ò g à 셤 à 149

437 203 497

377

```
365 CYISALVLSCLLTFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFS 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  425 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMFVLHGRNLLLFRSLESSWFFWLTLALAVI 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SLRPGEEDEGMOLLOTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
605 SLRPGEEDEGMQLLQTKDSMAKGARPGASRGRARWGLAYTLLHNPTLQVFRKTALLGANG 664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  150 -SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     545 GQMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD------GOPSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30; Indels
                                                                                                                                                                                                                             GAPELICANT: Pendation:

APPLICANT: Polakis, Paul
APPLICANT: Scato, Wayne
TITLE OF INVENTION: UPRECULATION OF TUMOR ANTIGENS TO
TITLE OF INVENTION: UPRECULATION OF TUMOR ANTIGENS TO
TITLE OF INVENTION: ENHANCE EFFICACY OF IMMUNOTHERAPY
FILE REFERENCE: GENENT: 083A
CURRENT APPLICATION NUMBER: 60/228,914
PRIOR PELICATION NUMBER: 60/228,914
PRIOR PELICATION NUMBER: 09/759,056
PRIOR APPLICATION NUMBER: 09/759,056
PRIOR FILING DATE: 2000-08-29
PRIOR FILING DATE: 2000-01-11
PRIOR FILING DATE: 2000-01-13
PRIOR FILING DATE: 2000-01-13
PRIOR PRIOR DATE: 2000-01-13
PRIOR SEQ ID NOS: 28
NUMBER OF SEQ ID NOS: 28
SOFTWARE: FastESQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 65.5%; Score 1110.5; DB Best Local Similarity 76.6%; Pred. No. 4.2e-95; Matches 232; Conservative 4; Mismatches 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 32, Application US/09863776
Publication No. US20030198953A1
GENERAL INFORMATION:
APPLICANT: Spytek, Kimberly A
APPLICANT: Majumder, Kumud
APPLICANT: Tchernev, Velizar T
                                                                                                                                                                         Sequence 2, Application US/09901812
Patent No. US20020173461A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AQP 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              264 AQP 266
                                            AQP 266
                                                                                667
                                                                                AOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-863-776-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-901-812-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   204
                                            264
                                                                                665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
      ద
                                      ò
                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      103 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         545 GQMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD 604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         424
                                                                                                                                                                                                                                                                                                                  204 SLRPGEEDEGMOLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                                                                                                                                                                                          596
                                                                                                    357 AYQTAPICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI 416
                                                                                                                                                                                   42
                                          297 CYISALVISCLLIFLVIMISLVTHRINLRALHRGAALDISPLHRSPHPSRQAIFCWMSFS 356
                                                                                                                                                               --------
        42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    150 -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SLRPGEEDEGMOLLOTKDSMAKGARPGAKRGRARWGLAYTLLHNPTLOVFRKTALLGANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                             -----GOFSWNLFS
                                                                                    43 VPLPPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Pennica, Diane
APPLICANT: Pennica, Diane
APPLICANT: Smith, Victoria
APPLICANT: Smith, Victoria
APPLICANT: Wood, William I.
APPLICANT: Wood, William I.
TITLE OF INVENTION: NO. US20020156252Alel STRA6 Polypeptides
FILE REFERENCE: GENENT.2827A2
CURRENT PEPLICATION NUMBER: US/09/759,056
CURRENT PELLING DATE: 2001-01-11
PRIOR PLILING DATE: 2000-04-14
PRIOR FILING DATE: 2000-01-13
PRIOR FILING DATE: 2000-01-13
PRIOR FILING DATE: 2000-01-13
PRIOR FILING DATE: 2000-01-13
PRIOR PLICATION NUMBER: 60/128914
PRIOR FILING DATE: 2000-01-13
SPRIOR PLICATION NUMBER: 60/228914
PRIOR PLILING DATE: 2000-08-29
NUMBER OF SEQ ID NOS: 5
SOFTWARRE: FASELSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1110.5; DB 9; Length 667;
                                                                                                                                                               LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30;
            ----INGSGGSGD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. 4.2e-95;
4; Mismatches 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 4
US-09-759-056-2
Sequence 2, Application US/09759056
Sequence 100 US/0020156252A1
Patent No. US20020156252A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 65.5%;
Best Local Similarity 76.6%;
Matches 232; Conservative 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                  AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                         AQP 599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     204
                                                                                                                                                                                                                                             150
                                                                                                                                                                                                                                                                                                                                                                                                    264
                                                                                                                                                                 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                          윱
                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                      ò
                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                   ઠે
```

-- 149

```
APPLICANT: Tables: Raymond J
FILE REFERENCE: 21402-020
CURRENT APPLICATION NUMBER: US/09/063,776
CURRENT FILING DATE: 2001-05-23
PRIOR PLING DATE: 2000-03-30
PRIOR PLING DATE: 2000-05-24
PRIOR PLING DATE: 2000-05-34
PRIOR PLING DATE: 2000-05-30
PRIOR APPLICATION NUMBER: 60/200, 798
PRIOR APPLICATION NUMBER: 60/200, 708
PRIOR APPLICATION NUMBER: 60/201, 507

42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             65.5%; Score 1110.5; DB 10; Length 667; 76.6%; Pred. No. 4.2e-95; ive 4; Mismatches 30; Indels 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD--
                                                                                                                                                                                                                                                                                                                                        Sequence 67, Application US/09863776 Publication No. US20030198953A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Spytek, Kimberly A
APPLICANT: Majumder, Kumud
APPLICANT: Tchernev, Velizar T
APPLICANT: Mishra, Vishnu
APPLICANT: Padigaru, Muralidhara
APPLICANT: Spaderna, Steven K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shenoy, Suresh G
Rastelli, Luca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 76.6
Matches 232; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-863-776-67
                                                                                                              264 AQP 266
                                                                                                                                                                                AOP 667
                                                                                                                                                                                                                                                                                                                US-09-863-776-67
                                                                                                                                                                                999
                                                                                                       8
                                                                                                                                                                     g
                                                                                                                                                                                                    APPLICANT: Taupier, Raymond J
APPLICANT: Taupier, Raymond J
APPLICANT: Taupier, Raymond J
APPLICANT: Taupier, Raymond J
APPLICANT: Taupier, Mayorous
TITLE OF INVENTION: No. U82003109951Alel Proteins and Nucleic Acids Encoding Same
TITLE PAPERENEE: 21042-02
CURRENT PLING DATE: 2001-05-23
PRIOR APPLICATION NUMBER: 09/540,763
PRIOR APPLICATION NUMBER: 09/540,763
PRIOR PLING DATE: 2000-03-40
PRIOR PLING DATE: 2000-05-44
PRIOR PLING DATE: 2000-05-44
PRIOR PLING DATE: 2000-05-44
PRIOR PLING DATE: 2000-05-44
PRIOR PLING DATE: 2000-05-40
PRIOR APPLICATION NUMBER: 60/200,451
PRIOR APPLICATION NUMBER: 60/201,431
PRIOR APPLICATION NUMBER: 60/201,431
PRIOR PLING DATE: 2000-07-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                365 CYISALVLSCLLTFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFS 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        425 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     204 SLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD------GQFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LQNMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65.5%; Score 1110.5; DB 10; Length 667; 76.6%; Pred. No. 4.2e-95; .ive 4; Mismatches 30; Indels 37;
                                                   Padigaru, Muralidhara
Spaderna, Steven K
Shenoy, Suresh G
Rastelli, Luca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 76.6
Matches 232; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-863-776-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          485
                                                                                                                                                        APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
R APPLICATION NUMBER: 60/086392
R FILING DATE: 1998-05-22
R APPLICATION NUMBER: 60/089532
R APPLICATION NUMBER: 60/089538
R FILING DATE: 1998-06-17
R APPLICATION NUMBER: 60/08905
R FILING DATE: 1998-06-18
R PILING DATE: 1998-06-18
R APPLICATION NUMBER: 60/090472
R RILING DATE: 1998-06-24
R PILING DATE: 1998-06-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R FILING DATE: 1998-06-25
R APPLICATION NUMBER: 60/091982
R FILING DATE: 1998-07-07
R FILING DATE: 1998-08-04
R FILING DATE: 1998-04
R APPLICATION NUMBER: 60/095318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R FILING DATE: 1998-08-31
R APPLICATION NUMBER: 60/099596
R FILING DATE: 1998-09-09
R FILING DATE: 1998-09-09
R FILING DATE: 1998-09-09
R APPLICATION NUMBER: 60/099803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1998-08-10
APPLICATION NUMBER: 60/096146
FILING DATE: 1998-08-11
FILING DATE: 1998-08-11
FILING DATE: 1998-08-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/100038 FILING DATE: 1998-09-11 APPLICATION NUMBER: 60/100385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1998-09-18
APPLICATION NUMBER: 60/100919
FILING DATE: 1998-09-17
APPLICATION NUMBER: 60/101477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PILING DATE: 1998-09-23
APPLICATION UNDRER: 60/101738
FILING DATE: 1998-09-24
APPLICATION NUMBER: 60/101741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 1998-09-24
APPLICATION NUMBER: 60/101786
FILING DATE: 1998-09-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/101916
FILING DATE: 1998-09-24
APPLICATION NUMBER: 60/101922
FILING DATE: 1998-09-24
APPLICATION NUMBER: 60/106178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1998-09-10
APPLICATION NUMBER: 60/099811
FILING DATE: 1998-09-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/099812
FILING DATE: 1998-09-10
APPLICATION NUMBER: 60/099816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PILING DATE: 1998-09-15
APPLICATION NUMBER: 60/100390
FILING DATE: 1998-09-15
APPLICATION NUMBER: 60/100627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1998-09-16
APPLICATION NUMBER: 60/100848
                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/090691
FILING DATE: 1998-06-25
APPLICATION NUMBER: 60/090695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 1998-08-04
APPLICATION NUMBER: 60/095916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1998-08-26
APPLICATION NUMBER: 60/098544
                           FILING DATE: 1998-05-13
APPLICATION NUMBER: 60/085579
FILING DATE: 1998-05-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/097986
  60/085323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1998-09-10
  PRIOR 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ation US/10227884

2030027988A1

T. Kevin P.

anoyees, Luc
erriesen, Mary
Soddard, Andrey
Godowski, Paul J.

TT: Stephan, John L.

AT: Joh
                                                                                   43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102
                                                                                                                                      484
                                                                                                                                                                                                                                                                                                                                                        604
                                                                                                                                                                                                                                                                                                                                                                                                             263
                                                                                                                                                                                                                                                                                                                                                                                                                                            545 GQMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                             SLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG
                                                                                                                                                                                                                                                                                                     -SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                               425 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI
                                                                                                                                                                                              LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       264
                                    365
                                                                                                                                                                                              103
                                                                                                                                                                                                                                                                                                        150
                                                                                                                                                                                                                                                                                                                                                                                                                204
                                                                                                                                         유
                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŝ
                                                                                      ઠે
```

```
PRIOR PILING DATE: 1998-10-29
PRIOR PILING DATE: 1998-10-29
PRIOR APPLICATION UNDRES: 60/106464
PRIOR PILING DATE: 1998-10-20
PRIOR APPLICATION UNDRES: 60/106905
PRIOR PILING DATE: 1998-11-10-30
PRIOR PILING DATE: 1998-11-10-30
PRIOR PILING DATE: 1998-11-17
PRIOR PILING DATE: 1998-11-17
PRIOR PILING DATE: 1998-11-17
PRIOR PILING DATE: 1998-11-18
PRIOR PILING DATE: 1998-11-18
PRIOR PILING DATE: 1998-12-15
PRIOR PILING DATE: 1998-12-15
PRIOR PILING DATE: 1998-12-15
PRIOR PILING DATE: 1998-12-15
PRIOR PILING DATE: 1999-10-10
PRIOR PILING DATE:
```

RESULT 9

UKS-10-230-163-80

Sequence 80, Application US/10230163

PUDIlication No. US20030036635A1

GENERAL INFORMATION:

APPLICANT GENERAL NAIP

APPLICANT GENERAL, Audrey

APPLICANT GODGWSKI, Paul J.

APPLICANT GOTHALL, Audrey

APPLICANT GOTHALL, Audrey

APPLICANT GOTHALL, Audrey

APPLICANT GOTHALL, Audrey

APPLICANT GOTHALL, J. Christopher

APPLICANT Smith, Victoria

APPLICANT STANSMEMBRANE POLYPEPTIDES AND NUCLEIC

TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES

TITLE OF INVENTION: SCRETED AND TRANSMEMBRANE

FILE REFERENCE: P3530PLC9

CURRENT APPLICATION NUMBER: US/10/230,163

PRIOR FILING DATE: 1997-10-13

PRIOR PILING DATE: 1997-10-23

PRIOR PILING DATE: 1997-10-13

PRIOR PILING DATE: 1998-03-20

PRIOR PILING DATE: 1999-03-20

PRIOR PILING DAT 43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102 425 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI 484 LQNMAAHWVFLETHDGHPQLINRRVLYAATFLLFPLNVLVGAMVATWRVLLSALYNAIHL 544 545 GQMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD 604 SLRPGBEDBGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263 424 42 150 -SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD ---GQFSWNLFS 103 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------37; Gaps DB 14; Length 667; 1 CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD-Query Match 65.5%; Score 1110.5; DB Best Local Similarity 76.6%; Pred. No. 4.2e-95; Matches 232; Conservative 4; Mismatches 30 PRIOR APPLICATION NUMBER: 60/166361
PRIOR FILING DATE: 1999-1-1-6
PRIOR PLICATION NUMBER: 60/169445
PRIOR PILING DATE: 1999-12-07
PRIOR APPLICATION NUMBER: 60/169495
PRIOR FILING DATE: 1999-12-07
PRIOR PLING DATE: 1999-12-07
PRIOR APPLICATION NUMBER: 60/169835 264 AQP 266 g 셤 ò à 8 8

R APPLICATION NUMBER: 60/099990

R APPLICATION NUMBER: 60/099598

R APPLICATION NUMBER: 60/099598

R APLICATION NUMBER: 60/099803

R FILING DATE: 1998-09-10

R FILING DATE: 1998-09-10

R FILING DATE: 1998-09-10

R FILING DATE: 1998-09-10

R APPLICATION NUMBER: 60/099812

R FILING DATE: 1998-09-10

R APPLICATION NUMBER: 60/093816

R FILING DATE: 1998-09-11

R FILING DATE: 1998-09-11

R APPLICATION NUMBER: 60/10038

R FILING DATE: 1998-09-11

R APPLICATION NUMBER: 60/10038

R FILING DATE: 1998-09-11

R APPLICATION NUMBER: 60/10038

R FILING DATE: 1998-09-11

R APPLICATION NUMBER: 60/100385

R FILING DATE: 1998-09-11

R APPLICATION NUMBER: 60/100386

R FILING DATE: 1998-09-15

R APPLICATION NUMBER: 60/100390 R FILING DATE: 1998-08-17
R APPLICATION NUMBER: 60/097986
R FILING DATE: 1998-08-26
R APPLICATION NUMBER: 60/096544
R APPLICATION NUMBER: 60/099596
R APPLICATION NUMBER: 60/099596 R APPLICATION NUMBER: 60/089538
R APPLICATION NUMBER: 60/089538
R FILING DATE: 1998-06-17
R FILING DATE: 1998-06-18
R FILING DATE: 1998-06-18
R FILING DATE: 1998-06-18
R FILING DATE: 1998-06-24
R FILING DATE: 1998-06-24
R APPLICATION NUMBER: 60/090557
R R FILING DATE: 1998-06-24
R APPLICATION NUMBER: 60/090557
R APPLICATION NUMBER: 60/090557
R APPLICATION NUMBER: 60/090591
R APPLICATION NUMBER: 60/090591
R APPLICATION NUMBER: 60/090591 R FILING DATE: 1998-03-27
R APPLICATION NUMBER: 60/081819
R FILING DATE: 1998-04-15
R FILING DATE: 1998-04-15
R FILING DATE: 1998-04-15
R APPLICATION NUMBER: 60/082804 R FILING DATE: 1998-05-13
R APPLICATION NUMBER: 60/085579
R FILING DATE: 1998-05-15
R FILING DATE: 1998-05-22
R FILING DATE: 1998-05-22
R APPLICATION NUMBER: 60/089532 FILING DATE: 1998-09-18 APPLICATION NUMBER: 60/100919 FILING DATE: 1998-09-17 PLICATION NUMBER: 60/095302 LING DATE: 1998-08-04 PLICATION NUMBER: 60/095318 FILING DATE: 1998-08-10 APPLICATION NUMBER: 60/096146 APPLICATION NUMBER: 60/100627 FILING DATE: 1998-09-16 APPLICATION NUMBER: 60/090695 FILING DATE: 1998-06-25 PLICATION NUMBER: 60/091982 LING DATE: 1998-07-07 FILING DATE: 1998-08-04 APPLICATION NUMBER: 60/095916 FILING DATE: 1998-03-25 APPLICATION NUMBER: 60/079656 FILING DATE: 1998-03-26 APPLICATION NUMBER: 60/079728 APPLING DATE: 1998-04-22 APPLICATION NUMBER: 60/084441 FILING DATE: 1998-05-06 FILING DATE: 1998-08-11 APPLICATION NUMBER: 60/096791 APPLICATION NUMBER: 60/085323 PRIOR PRIOR

R APPLICATION NUMBER: 60/106464
R FILING DATE: 1998-10-29
R APPLICATION NUMBER: 60/106464
R FILING DATE: 1998-10-30
R APPLICATION NUMBER: 60/106905
R FILING DATE: 1998-11-03
R APPLICATION NUMBER: 60/108801
R FILING DATE: 1998-11-17
R APPLICATION NUMBER: 60/108849
R APPLICATION NUMBER: 60/10849
R APPLICATION NUMBER: 60/113296
R APPLICATION NUMBER: 60/113296
R APPLICATION NUMBER: 60/113296
R APPLICATION NUMBER: 60/113296
R FILING DATE: 1998-12-15
R APPLICATION NUMBER: 60/113296
R FILING DATE: 1998-12-23
R APPLICATION NUMBER: 60/113605
R FILING DATE: 1998-12-23
R APPLICATION NUMBER: 60/113605
R FILING DATE: 1998-12-23 R APPLICATION NUMBER: 60/115565

R FILING DATE: 1999-01-12

R APPLICATION NUMBER: 60/115733

R APPLICATION NUMBER: 60/119549

R APPLICATION NUMBER: 60/119549

R FILING DATE: 1999-02-10

R FILING DATE: 1999-02-10

R FILING DATE: 1999-03-10

R FILING DATE: 1999-03-10

R FILING DATE: 1999-03-10

R FILING DATE: 1999-03-10 R APPLICATION NUMBER: 60/131022
R FILING DATE: 1999-04-26
R FILING DATE: 1999-04-27
R APPLICATION NUMBER: 60/131291
R APPLICATION NUMBER: 60/131291
R APPLICATION NUMBER: 60/131495
R APPLICATION NUMBER: 60/131495 R APPLICATION NUMBER: 60/101741
R PILING DATE: 1998-09-24
R PILING DATE: 1998-09-25
R PILING DATE: 1998-09-25
R APPLICATION NUMBER: 60/101916
R PILING DATE: 1998-09-24
R PILING DATE: 1998-09-24
R PILING DATE: 1998-09-24 FILING DATE: 1999-04-05 APPLICATION NUMBER: 60/130232 FILING DATE: 1999-04-21 FILING DATE: 1999-06-23 APPLICATION NUMBER: 60/144758 FILING DATE: 1999-07-20 APPLICATION NUMBER: 60/126773 FILING DATE: 1999-03-29 APPLICATION NUMBER: 60/127887 FILING DATE: 1999-04-28 APPLICATION NUMBER: 60/134287 FILING DATE: 1999-06-22 APPLICATION NUMBER: 60/140723 FILING DATE: 1999-06-22 APPLICATION NUMBER: 60/141037 APPLICATION NUMBER: 60/106178 FILING DATE: 1998-10-28 APPLICATION NUMBER: 60/106248 FILING DATE: 1998-12-23 APPLICATION NUMBER: 60/115558 FILING DATE: 1999-01-12 FILING DATE: 1998-09-23 APPLICATION NUMBER: 60/101738 FILING DATE: 1998-09-24 FILING DATE: 1999-03-23 1998-09-2 PRIOR PRIOR

APPLICATION NUMBER: 60/145698

```
LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              365 CYISALVLSCLLTFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               425 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SLRPGEEDEGMOLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          --GOFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        150 -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       f: Wood, William I.
INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
INVENTION: ACIDS ENCODING THE SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                          Remaining Prior Application data removed - See File Wrapper or PALM. NUMBER OF SEQ ID NOS: 246
SEQ ID NO 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1110.5; DB 14;
Pred. No. 4.2e-95;
4; Mismatches 30; II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Desnoyers, Luc
Gerritsen, Mary
Goddard, Audrey,
Godowski, Paul J.
Grimaldi, J. Christopher
Gurney, Austin L.
Smith, Victoria
Srephan, Jean-Philippe F.
            PRIOR FILING DATE: 1997-09-17
PRIOR PILING DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/062287
PRIOR PILING DATE: 1997-10-17
PRIOR PLING DATE: 1997-10-17
PRIOR PELING DATE: 1997-10-28
PRIOR PELING DATE: 1997-10-31
PRIOR PILING DATE: 1997-10-31
PRIOR PILING DATE: 1997-10-31
PRIOR PILING DATE: 1997-10-31
PRIOR APPLICATION NUMBER: 60/069873
PRIOR PILING DATE: 1998-03-20
PRIOR PILING DATE: 1998-03-25
PRIOR PILING DATE: 1998-03-25
PRIOR PILING DATE: 1998-03-25
PRIOR PILING DATE: 1998-03-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 80, Application US/10218631 Publication No. US20030045687A1 GENERAL INFORMATION:
60/059113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 76.6
Matches 232, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Baker, Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Homo Sapien
US-10-230-338-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AQP 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-218-631-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    425 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     103 LONMAAHWVFLETHDGHPOLTNRRVLYAATFLLFPLNVLVGAMXXXC------ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Gurmey, Austin L.
APPLICANT: Smith, Victoria
APPLICANT: Stephan, Jean-Philippe F.
APPLICANT: Matanabe, Colin L.
APPLICANT: Watanabe, Colin L.
APPLICANT: Wood, William I.
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3530PLC92
CURRENT APPLICATION NUMBER: US/10/230,338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                485 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMVATWRVLLSALYNAIHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD-------GQFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              150 -SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       545 GOMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SLRPGEEDEGMOLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 14; Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 65.5%; Score 1110.5; DB Best Local Similarity 76.6%; Pred. No. 4.2e-95, Matches 232; Conservative 4; Mismatches 3(
                PRIOR APPLICATION NUMBER: 60/146222
PRIOR FILING DATE: 1999-07-28
PRIOR PILING DATE: 1999-08-03
PRIOR PILING DATE: 1999-08-03
PRIOR PILING DATE: 1999-08-03
PRIOR PAPLICATION NUMBER: 60/14930
PRIOR PELING DATE: 1999-08-17
PRIOR PELING DATE: 1999-08-17
PRIOR PELING DATE: 1999-08-17
PRIOR PILING DATE: 1999-08-17
PRIOR APPLICATION NUMBER: 60/16418
PRIOR PILING DATE: 1999-11-09
PRIOR PILING DATE: 1999-11-09
PRIOR APPLICATION NUMBER: 60/169445
PRIOR APPLICATION NUMBER: 60/16945
PRIOR APPLICATION NUMBER: 60/16945
PRIOR PELING DATE: 1999-11-16
PRIOR APPLICATION NUMBER: 60/16945
PRIOR PELING DATE: 1999-12-07
PRIOR PELING DATE: 1999-12-07
PRIOR PELING DATE: 1999-12-07
PRIOR PELING DATE: 1999-12-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT FILING DATE: 2002-08-28
PRIOR APPLICATION NUMBER: 10/119,480
PRIOR FILING DATE: 2002-04-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Baker, Kevin P.
APPLICANT: Desnoyers, Luc
APPLICANT: Gerriteen, Mary
APPLICANT: Goddard, Audrey
APPLICANT: Goddowski, Paul J.
APPLICANT: Grimaldi, J. Christopher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 80, Application US/10230338 Publication No. US20030044934A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AQP 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-230-338-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

102 484

544

424

263

```
APPLICANT:
WOOG, WILLIAM I.
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3530PLC98
CURRENT APPLICATION NUMBER: US/10/230,414
CURRENT FILING DATE: 2002-08-28
PRIOR APPLICATION NUMBER: 10/119,480
PRIOR FILING DATE: 2002-04-09
PRIOR PILING DATE: 1997-09-17
PRIOR PILING DATE: 1997-09-17
PRIOR PILING DATE: 1997-09-17
PRIOR APPLICATION NUMBER: 60/06287
PRIOR APPLICATION NUMBER: 60/06349
PRIOR FILING DATE: 1997-10-17
PRIOR PILING DATE: 1997-10-13
PRIOR PILING DATE: 1997-10-31
PRIOR PILING DATE: 1998-03-20
PRIOR PILING DATE: 1998-03-26
PRIOR APPLICATION NUMBER: 60/079284
PRIOR PILING DATE: 1998-03-26
PRIOR APPLICATION NUMBER: 60/079284
PRIOR PILING DATE: 1998-03-26
PRIOR PILING DATE: 1998-03-26
PRIOR PILING DATE: 1998-03-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              365 CYISALVLSCLLTFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQALFCWMSFS 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   425 AYQTARICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            485 LONMAAHWVFLETHDGHPOLTNRRVLYAATFLLFPLNVLVGAMVATWRVLLSALYNAIHL 544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    150 -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        545 GOMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD 604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SLRPGEEDEGMOLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD------GQFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  103 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 14; Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2e-95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            65.5%; Score 1110.5; 76.6%; Pred. No. 4.2e ive 4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Sequence 80, Application US/10232224; Publication No. US20030065147A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Baker, Kevin P.
APPLICANT: Desnoyers, Luc
APPLICANT: Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity 76.6
Matches 232; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            264 AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-232-224-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-230-414-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           365 CYISALVLSCLLTFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFS 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   425 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            545 GOMDISILPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD 604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SLRPGEEDEGMOLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  605 SLRPGEEDEGMQILQTKDSMAKGARPGASRGRARWGLAYTLLHNPTLQVFRKTALLGANG 664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          42
CURRENT PAPELICATION NUMBER: US/10/218,631

CURRENT PILING DATE: 2002-08-12

PRIOR PILING DATE: 2002-08-09

PRIOR PILING DATE: 10/119,480

PRIOR PILING DATE: 10/019,480

PRIOR PELICATION NUMBER: 60/059113

PRIOR PELING DATE: 1997-09-17

PRIOR PELING DATE: 1997-09-17

PRIOR PELING DATE: 1997-10-17

PRIOR PELING DATE: 1997-10-28

PRIOR PILING DATE: 1997-10-31

PRIOR PELING DATE: 1997-10-31

PRIOR PELING DATE: 1997-10-31

PRIOR PELING DATE: 1997-10-31

PRIOR PELING DATE: 1997-12-17

PRIOR PELING DATE: 1997-12-17

PRIOR PELING DATE: 1998-03-20

PRIOR PELING DATE: 1998-03-25

PRIOR PELING DATE: 1998-03-25

PRIOR PELING DATE: 1998-03-26

PRIOR PELING DATE: 1998-03-26

PRIOR PELING DATE: 1998-03-26

PRIOR PELING DATE: 1998-03-26

PRIOR PELING DATE: 1998-03-27

PRIOR PELING DATE: 1998-03-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD------GQFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    103 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             150 -SPSIAIRHP----TPGYYTYRNFLKIEVSOSHPAMTAFCSLLLOAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 14; Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 65.5%; Score 1110.5; DB Best Local Similarity 76.6%; Pred. No. 4.2e-95; Matches 232; Conservative 4; Mismatches 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Baker, Kevin P.
APPLICANT: Deenoyers, Luc
APPLICANT: Gerriteen, Mary
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J.
APPLICANT: Grainaldi, J. Christopher
APPLICANT: Gurney, Austin L.
APPLICANT: Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 80, Application US/10230414 Publication No. US20030050448A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , ORGANISM: Homo Sapien
US-10-218-631-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AOP 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-230-414-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              264
```

ઠે

ò 셤 ઠે 셤 ઠ 셤 ሯ 원 ò No. US20030069397A1

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 425 AYQTAFICLGLLVQQIIPPLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   150 -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               545 GQMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD 604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   204 SLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              605 SLRPGEEDEGMQLLQTKDSMAKGARPGASRGRARWGLAYTLLHNPTLQVPRKTALLGANG 664
                                                                                          APPLICANT: Stephan, Jean-Philippe F.
APPLICANT: Watenabe, Colin L.
APPLICANT: Watenabe, Colin L.
APPLICANT: Wood, William I.
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME FILE REFERENCE: P3530PCI11
CURRENT APPLICATION NUMBER: 105/10/232,224
CURRENT FILING DATE: 2002-08-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        103 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    --GOFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         365 CYISALVLSCLLTFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Remaining Prior Application data removed - See File Wrapper or PALM. NUMBER OF SEQ ID NOS: 246
SEQ ID NO 80
LENGTH: 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1110.5; DB 14; Length 667;
Pred. No. 4.2e-95;
4; Mismatches 30; Indels 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD
                                                                                                                                                                                                                                                            CURRENT FILING DATE: 2002-08-09
PRIOR APPLICATION NUMBER: 10/119,480
PRIOR APPLICATION NUMBER: 60/0691
PRIOR APPLICATION NUMBER: 60/06213
PRIOR PILING DATE: 1997-09-17
PRIOR PELING DATE: 1997-09-17
PRIOR PELING DATE: 1997-10-28
PRIOR PILING DATE: 1997-10-28
PRIOR APPLICATION NUMBER: 60/064103
PRIOR APPLICATION NUMBER: 60/06937
PRIOR PILING DATE: 1997-10-31
PRIOR PILING DATE: 1997-10-31
PRIOR PELING DATE: 1997-10-31
PRIOR PELING DATE: 1997-10-30
PRIOR FILING DATE: 1998-03-20
PRIOR FILING DATE: 1998-03-25
PRIOR PILING DATE: 1998-03-25
PRIOR PILING DATE: 1998-03-25
PRIOR PILING DATE: 1998-03-25
PRIOR PILING DATE: 1998-03-25
PRIOR FILING DATE: 1998-03-25
PRIOR FILING DATE: 1998-03-25
Godowski, Paul J. Gristopher Grimaldi, J. Christopher Gurney, Austin L. Smith, Victoria Ecphan, Jean-Philippe F. Ktephan, Jean-Philippe F. Wood, William I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 76.6%;
Matches 232; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo Sapien
US-10-232-224-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                264 AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
```

RESULT 14 US-10-216-159A-80 ; Sequence 80, Application US/10216159A

```
APPLICANT: Stephan, Jean-Philippe F.
APPLICANT: Stephan, Jean-Philippe F.
APPLICANT: Watanabe, Colin L.
APPLICANT: Watanabe, Colin L.
APPLICANT: Watanabe, Colin L.
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILER REFERENCE: P3330PLG
CURRENT PILING DATE: 2002-08-09
PRIOR APPLICATION NUMBER: US/10/216,159A
CURRENT FILING DATE: 2002-04-09
PRIOR FILING DATE: 1997-09-17
PRIOR FILING DATE: 1997-0-17
PRIOR FILING DATE: 1997-10-17
PRIOR FILING DATE: 1997-10-17
PRIOR PRIOR APPLICATION NUMBER: 60/06287
PRIOR APPLICATION NUMBER: 60/063849
PRIOR FILING DATE: 1997-10-31
PRIOR FILING DATE: 1997-10-31
PRIOR FILING DATE: 1997-10-31
PRIOR FILING DATE: 1997-12-17
PRIOR FILING DATE: 1997-12-17
PRIOR FILING DATE: 1998-03-25
PRIOR FILING DATE: 1998-03-25
PRIOR APPLICATION NUMBER: 60/079556
PRIOR FILING DATE: 1998-03-26
PRIOR FILING DATE: 1998-03-26
PRIOR FILING DATE: 1998-03-26
PRIOR FILING DATE: 1998-03-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SLRPGEEDEGMOLLQTXDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        425 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            545 GOMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365 CYISALVISCILIFIVIAMSLVIHRINLRALHRGAALDISPIHRSPHPSRQAIFCWMSFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        150 -SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 14; Length 667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1110.5; DB Pred. No. 4.2e-95; 4; Mismatches 30
                                                       Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
Gurney, Austin L.
Smith, Victoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 76.6%;
Matches 232; Conservative
Desnoyers, Luc
Gerritsen, Mary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
CORGANISM: Homo Sapien
US-10-216-159A-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               999
                                                                                                                                         APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

```
sequence 80, Application US/10218849
sequence 80, Application US/10218849
sublication No. US20030073814A1
general information:
APPLICANT: Baker, Kevin P.
APPLICANT: Gedard, Audrey,
APPLICANT: Gedard, Audrey,
APPLICANT: Grimaldi, J. Christopher
APPLICANT: Grimaldi, J. Christopher
APPLICANT: Grimaldi, J. Christopher
APPLICANT: Smith, Victorian L.
APPLICANT: Smith, Victorian L.
APPLICANT: Smith, Victorian L.
APPLICANT: Smith, Jean-Philippe F.
APPLICANT: Smith, Jean-Philippe F.
APPLICANT: Watanabe, Colin L.
APPLICA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            605 SLRPGEEDEGMQLLQTKDSMAKGARPGASRGRARWGLAYTLLHNPTLQVFRKTALLGANG 664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365 CYISALVLSCLLTFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFS 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43 VPLPPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       103 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        150 -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               545 GQMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRIWAAPQD 604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           204 SLRPGBEDBGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD-----GOFSWNLFS 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30; Indels 37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 65.5%; Score 1110.5; DB 14; Length 667; Best Local Similarity 76.6%; Pred. No. 4.2e-95; Matches 232; Conservative 4; Mismatches 30; Indels 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Search completed: February 8, 2005, 13:45:13 Job time : 109.54 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
CORGANISM: Homo Sapien
US-10-218-849-80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              264 AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 665 AQP 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

This Page Blank (uspto)

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM protein - protein search, using sw model

February 8, 2005, 13:29:35; Search time 31.6317 Seconds (without alignments) 988.580 Million cell updates/sec Run on:

US-09-816-653A-4 1695 1 CYISALVLSCLLTFLVLMRS......APPTWLWESQQGFWRKKLVG 325 Title: Perfect score: Sequence:

Scoring table:

283416 seqs, 96216763 residues BLOSUM62 Gapop 10.0 , Gapext 0.5 Searched:

283416 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

summaries Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 su

PIR 79:*.

1. pirl:*

2. pir2:*

3. pir3:*

4. pir4:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

3	Description	probable thiamin A	sodium channel pro	cytochrome-c oxida	regulatory protein	probable cytochrom		hypothetical prote	UL36 protein - hum	hypothetical prote	probable innner me	growth factor rece	hypothetical prote	iron(III)-transpor	conserved hypothet	hypothetical prote	hypothetical prote	probable membrane	hypothetical prote	cytochrome-c oxida	NADH2 dehydrogenas	probable acyltrans	probable ABC-type	probable ABC-type	sulfate transport	NADH2 dehydrogenas	probable amino aci	sfuB protein - Ser		hypotherical prote
SUMMERTES	ID	A71361	A38195	T44942	S18420	C91079	D85924	S34364	WMBEH6	A65056	AB1061	149199	G83556	AI0359	A87673	S40085	T18704	AB0854	T01263	T11290	B81252	F95948	T35182	T07712	AG1846	T11088	D83617	QRSEUB	B75265	875137
	DB	7	7	~	7	~	~	~	Н	~	~	~	N	N	~	7	7	~	~	~	~	~	~	~	~	N	7	-	7	-
	Length	593	2016	581	625	107	107	268	3164	107	395	621	301	528	582	614	340	402	166	230	332	377	636	101	291	321	477	527	582	222
٠	Query Match	5.7	5.5	5.4	5.3	5.3	5.3	5.3	5.3	5.2	5.2	5.1	5.1	5.1	5.1	5.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4
	Score	96.5	93	91.5	90.5	89.5	89.5	σ	83	88.5	88.5	87	86.5	98	98	86	85.5	85.5	84.5	84.5	84.5	84.5	84.5	84.5	84	84	84	84	84	ď
	Result No.	-	7	m	4	Ŋ	ø	7	80	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29

permease protein o	hypothetical prote	ct339 hypothetical	ATP-dependent DNA	hypothetical prote	sodium channel pro	cytochrome-c oxida	transporter ybfD [dual leucine zippe	polyprotein - dour	probable membrane	MFS permease [prol	proline/betaine tr	hypothetical prote	conserved hypothet	dipeptide transpor
AB2436	T31891	F72126	F75302	E82987	CHRTM1	C38941	B86644	JC5399	T08841	A87135	AB3088	G98198	A98344	AF2938	AG3535
0	N	~	~	Ŋ	н	7	~	~	7	~	N	N	~	N	7
297	394	487	296	1089	1840	228	393	888	3005	335	516	516	627	627	315
4.9	4.9	4.9	4.9	4.9	6.4	4.9	4.9	6.4	6.4	4.8	4.8	4.8	4.8	4.8	4.8
83	83	83	83	83	83	82.5	82.5	82.5	82.5	82	82	85	82	82	81.5
30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

RESULT 1 A71361 probable tl C;Species: 24 C;Date: 24 C;Date: 24 C;Accession R;Frager, rson, J; they, L; Science 28 A;Title: C, A;Reference A;Reference A;Residues A;Genetics A;Genetics A;Genetics	1 le thiamin ABC transporter, permease protein - sies: Treponema pallidum subsp. pallidum (syphili: 24-Jul-1998 #sequence_revision 24-Jul-1998 #te ssion: A71361 ssion: A71361 J; Khalak, H.; Richardson, D.; Howell, J.K.; Ch., Weidman, J.; Smith, H.O.; Venter, J.C. e: Conplete genome sequence of Treponema pallidurence number: A71250; MUID:98332770; PMID:966587 esion: A71361 us: preliminary; nucleic acid sequence not shown cule type: DNA g-references: UNIPROT:083179; GB:AE001199; GB:AE tics: TP0143
Query Me Best Loc Matches	Query Match Best Local Similarity 23.0%; Pred. No. 1.7; Matches 61; Conservative 29; Mismatches 86; Indels 89; Gaps 12;
Qy Dp	3 ISALVLSCLLTFLVLMRSLVTHRLGSGGSGDGQFSWNLFSVPLPLPPLAGLLVQQI 58 : : : :
Oy Qa	59 IFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPF
ςς QΩ	101 VILQNMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXCSP 151 :
Qy QD	152 SIAIRHPTPGYYTYRNFLKIEVSQSHPAMTAFCSLLL 188
oy Pa	189 QAQSLLPRIWAAPQDSLRPGEEDEG 213 : : 325 QAQSCVARTRPLPTQSIQGNIERIG 349

RESULT 2
A38195
Sodium Channel protein hHI, cardiac - human
Sodium Channel protein hHI, cardiac - human
N;Alternate names: tetrodotoxin-insensitive, voltage-dependent sodium channel, TTX-I N;
C;Species: Homo sapiens (man)
C;Species: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 09-Jul-2004

N

```
Score 89.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 27.7%;
Matches 48; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A, Accession: C91079
A, Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C, Genetica
                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                      ò
                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Atternate names: ba3-type cytochrome-c oxidase chain I (similarity) - Natronobacterium pharaonis C;Species: Natronobacterium pharaonis C;Species: Natronobacterium pharaonis C;Date: 21-Jan-2000 #sequence_revision 21-Jan-2000 #text_change 09-Jul-2004 C;Accession: T44942
R;Mattarf, S.; Engelhard, M.
Eur. J. Biochem. 250, 332-341, 1997
A;Riftle: Cytochrome ba3 from Natronobacterium pharaonis: An archaeal four-subunit cytoch A;Reference number: 222876; MUID:98088958; PMID:9428682
A;Accession: T44942
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Accession: T44042
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Residues: 1-531 - AAAT>
A;Experimental source: strain SPI/28
A;Experimental source: strain SPI/28
C;Superfamily: cytochrome-c oxidase chain I; cytochrome-c oxidase chain I homology
C;Keywords: copper; electron transfer; heme; iron; magnesium; membrane-associated comple F;228-232/Cross-link: 1'-histidy1-3'-tyrosine (His-Tyr) #status predicted
F;379/Binding site: heme a3 iron (His) (axial ligand) #status predicted
C; Accession: A38195
R;Gellens, M.E.; George Jr., A.L.; Chen, L.Q.; Chahine, M.; Horn, R.; Barchi, R.L.; Kall Proc. Natl. Acad. Sci. U.S.A. 89, 554-558, 1992
A;Title: Primary structure and functional expression of the human cardiac tetrodotoxin-i A;Reference number: A38195, MUD:92115699; PMID:1309946
A;Accession: A38195
A;Ac
                                                                                                                                                                                                                                                                                                                                                                                                  Experimental source: heart
Superfamily: sodium channel protein
Keywords: cardiac muscle; duplication; glycoprotein; heart; ion transport; sodium char
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          130 AATFLLFPLNVLVGAMXXXCSPSIAIRHPTPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQ 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  190 AQSLLPRIMAAPQDSLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLL-HNP 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66 ALAFLVLMPVLHGRNLLFFRSLESSW----PFWLTLALAVILONMAAHWVFLETHDGHPQ 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LVLSCLLTFLVLMRSLVTHRLGSGGSGDGQFSWNLFSVPLPLPPLAGLLVQQIIFFLGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----LTLALAVILQNMAAHWV-----FLETHDGHPQLTNR---RVLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35 QPSWNLFSVPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               826 NTLIKIIGNSVGALGNLTLVLAIIVFIFAVVGMQLFGKNYSELRDSDSGLLPRWHMMDFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  886 HAFLIIF--RILCGEWIETMWDCMEVSGQS---LCLLVFLLVWVIGNLVVLNLFLALLLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SFS-----ADNLTAPDEDREMNNLQL--ALARIQRGLRFVKRTTWDFCCGLLRHRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 2; Length 581;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 2; Length 2016;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 5.5%; Score 93; DB 2; Length 201 Best Local Similarity 23.8%; Pred. No. 14; Matches 67; Conservative 31; Mismatches 113; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             249 TLQVFRKTALLGANGAQP-CSSLPGSPPSITPAMQPAGPPD 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ch 5.4%; Score 91.5; DE Similarity 26.6%; Pred. No. 4.5; 63; Conservative 32; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 63; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
```

```
C,Accession: 518420
R; Liangy Y.Y.; Kaminski, P.A.; Bulerrich, C.
Mol. Microbiol. 5, 2735-2744, 1991
A,Title: Identification of a nifA-like regulatory gene of Azospirillum brasilense Sp7 ex
A,Reference number: S18420; MUID:92140038; PMID:1779763
A,Accession: S18420
A,Status: preliminary
A,Accession: B,AA
A,Residues: 1-625 LiA
A,Residues: 1-625 LiA
A,Cross-references: UNIPROT: P30667; EMBL:X60714; NID:938677; PIDN:CAA43126.1; PID:938678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          probable cytochrome oxidase subunit [imported] - Escherichia coli (strain 0157:H7, subst C;Species: Escherichia coli (cjate: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 09-Jul-2004 C;Accession: C91079
R;Hayashi, T.; Makino, K.; Ohnishi, M.; Kurokawa, K.; Ishii, K.; Yokoyama, K.; Han, C.G. gasawara, N.; Yasunaga, T.; Kuhara, S.; Shiba, T.; Hattori, M.; Shinagawa, H. DNA Res: 8, 11-22, 2001
A;Fitle: Complete genome sequence of enterohemorrhagic Escherichia coli 0157:H7 and geno A;Reference number: A99629; MUID:21156231; PMID:11258796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Residues: 1-107 <HAY>
A;Cross-references: UNIPROT:Q8X7Y2; GB:BA000007; PIDN:BAB37026.1; PID:g13363074; GSPDB:C
A;Experimental source: strain O157:H7, substrain RIMD 0509952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fhla ty
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Gene: nifA
C;Superfamily: Response regulator (sigma54-dependent transcriptional activator),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       266
                                                                                                       230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     546
                                                                 122 LINRR-----VLYAATFLLF-PLNVLVGAMXXXCSPSIAIRHPTPGYYTYRNFLKIEVSQ 175
353 AAAFSGM--VNAGMNINYL--VHNTWWVVGHFHLTVGTAVALTFMAVSYWFL-----PQ 402
                                                                                                                                                                                                 211
                                                                                                                                                                                                                                                                                                                                                                                                                           regulatory protein nifA - Azospirillum brasilense
C,Species: Azospirillum brasilense
C,Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CSLNLCNSSVLFQYRTLGASVGGLAP------SMGPGAINRVPPGRPGGPAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----AXRGRARWGLAYTLLHNPTLQVFRKTALLGANG----AQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;Reywords: ĎNA binding; P-loop; transcription regulation
;205-426;Domain: RNA polymerase sigma factor interaction domain homology
;233-240/Region: nucleotide-binding mctif A (P-loop) #status atypical
;300-304/Region: nucleotide-binding motif B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                       ---PRTMAAPQ--DSLRPGEED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CSSLPGSPPSITPAMQPAGPPDHXGXVEVCLHWEPXXGSAPPTWLWESQQGFW 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CPSRAPLPPQAPPPSPAAPPP---AAEVPLD-EPESGSLRDRLLWAMERTGW 595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 625;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CSLLLQAQSLL--PRTMAAPQDSLRPGEEDEGMQLLQTKDSMAKGA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A,Gene: EC63603
C,Superfamily: uncharacterized conserved protein YPO3363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 90.5; DE
Pred. No. 5.9;
9; Mismatches
                                                                                                                                                                                                        176 SH----PAMTAFCSLLLQAQSLL-----
```

Length 107;

DB 2;

```
Cipate: 31-Dec-1989 #sequence_revision 31-Dec-1989 #text_cinaings v. v... c... Cipate: 31-Dec-1989 #sequence_revision 31-Dec-1989 #text_consion: 130085
KindGeoch, D.J.; Dalrymple, M.A.; Davison, A.J.; Dolan, A.; Frame, M.C.; McNab, D.; Perr B. Gen. Virol. 69, 1531-1574, 1988
A;ritle: The complete DNA sequence of the long unique region in the genome of herpes sin A;Reference number: A30083; MUID:88274327; PMID:2839594
A;Accession: 130085
A;Status: nucleic acid sequence not shown; translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA A; Residues: 1-3164 «MCG> A; Residues: 1-3164 «MCG> C; GB:X14112; NID:g1944536; PIDN:CAA32311.1; PID:g59537 C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hypothetical protein in surE-cysC intergenic region - Escherichia coli (strain K-12) C;Species: Escherichia coli C;Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 09-Jul-2004 C;Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 09-Jul-2004 C;Datession: A65056 R;Blattner. F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; Riley, M.; C.A.; Rose, D.J.; Mau, B.; Shao, Y. Science 277, 1453-1462, 1997 A;Title: The complete genome sequence of Escherichia coli K-12. A;Reference number: A64720; MuID:97426617; PMID:9278503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary; nucleic acid sequence not shown; translation not shown A;Molecule type: DNA, Residues: 1-107 < SELATA | A;Residues: 1-107 < SELATA | A;Residues: 1-107 < SELATA | A;Cross-references: UNIPROT: P46141; GB:AE000358; GB:U00096; NID:g2367156; PIDN:AAC75791 A;Experimental source: strain K-12, substrain MG1655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        247 NPTLQVFRKTALLGANGAQPCSSLPGSPPSITPAMQPAGPPDHXGXVEVCLHWEPXXGSA 306
                                                                                                                                                                                         UL36 protein - human herpesvirus 1
C,Species: human herpesvirus 1
C,Date: 31-Dec-1989 #sequence_revision 31-Dec-1989 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            33 DGQFSWNLFSVPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVL-HGRNLLFFRSLESSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92 PFWLTLALAVILONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAM 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 5.3%; Score 89; DB 1; Length 3164; Best Local Similarity 36.9%; Pred. No. 51; Matches 24; Conservative 4; Mismatches 17; Indels 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21; Mismatches 34; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Gene: ygbE
C;Superfamily: uncharacterized conserved protein YPO3363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 88.5; DB 2;
Pred. No. 1.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Gene: UL36
C;Superfamily: varicella-zoster virus gene 22 protein
                RRVLYAATFLLFPLNVLVGAM 145
                                               ---LYIVLYIISLVTIAVGGL 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 24.6*
Matches 28; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |||:|
2864 PPTYL 2868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           307 PPTWL 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                59
                   125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C, Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                      ð
                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                  probable cytochrome oxidase subunit ygbE [imported] - Escherichia coli (strain 0157:H7, C;Species: Bacherichia coli
C;Date: 16-Peb-2001 #sequence_revision 16-Peb-2001 #text_change 09-Jul-2004
R;Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, J.D.; Rose, D.J.; Mayhew
Iller, L.; Grotbeck, E.J.; Davis, N.W.; Lim, A.; Dimalanta, E.; Potamousis, K.; Apodaca,
Nature 409, 529-533, 2001
A;Title: Genome sequence of enterohemorrhagic Escherichia coli 0157:H7.
A;Reference number: ABS480; MUID:21074935; PMID:11206551
A;Reference number: ABS480; MUID:21074935; PMID:11206551
A;Residues: 1-107 <STO>
A;Coss-references: UNIPROT:08X7V2; GB:AE005174; NID:912517203; PIDN:AAG57856.1; GSPDB:G
A;Esperimental source: strain 0157:H7, substrain EDL933
C;Genetics:
A;Gene: ygbE
C;Superfamily: uncharacterized conserved protein YPO3363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hypothetical protein X - Salmonella typhimurium (fragment)
C,Species: Salmonella typhimurium
C,Species: S34364
R,Secies: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 08-Oct-1999
C,Accession: S34364
R,Persson, B.C.; Bjork, G.R.
submitted to the EMBL Data Library, June 1993
A,Description: Isolation of a gene (miaE) involved in hydroxylation of ms2io6A in tRNA of A,Accession: S34359
A,Accession: S34364
A,Status: preliminary
A,Molecule type: DNA
A,Residues: 1-268 <PER>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65 TALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVILONMAAHWVFLETHDGHPQLTN 124
                      'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27 ALFISVLLVFIIYIVSLSLIEHGHPGLG----FTLF------GLLI-AIIPFMAV 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5 ALVLSCLLTFLVLMRSLVTHRLGSGGSGDGQFSWNLFSVPLPLPPLAGLLVQQIIFFLGT 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     33 DGQFSWNLFSVPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVL-HGRNLLFFRSLESSW 91
                                                                          91
                                                                                                                          58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | : :|: | | : | | | | DEETTWS------LPGAVV-------GFISWLFALAMPMLIYGSNTLFF-FIYTW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: EMBL:X73368; NID:g312705; PIDN:CAA51785.1; PID:g312711
                                                                                                            33 DGQFSWNLFSVPLPPLAGLLVQQIIFFLGTTALAFLVLMPVL-HGRNLLFFRSLESSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels 39; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     34; Indels 31; Gaps
                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 92 PFWLTLALAVILQNMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAM 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92 PFWLTLALAVILQNMAAHWVPLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAM 145
                                                                                                                                                                                                                31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2; Length 268;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2; Length 107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        45;
                      34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 24.6%; Pred. No. 0.96;
Matches 28; Conservative 21; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5.3%; Score 89.5; DE
26.2%; Pred. No. 2.7;
ative 20; Mismatches
24.6%; Pred. No. 0.96;
tive 21; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           37; Conservative
Similarity 24.698; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                           28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18
  Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                ઠે
                                                                                                                               셤
                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                셤
```

<u>ښ</u>

ŝ

1 58

```
hypothetical protein PA0702 [imported] - Pseudomonas aeruginosa (strain PAO1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
Matches 78; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Accession: G83556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Gene: PA0702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
probable innner membrane protein STV4813 [imported] - Salmonella enterica subsp. enterid C, Species: Salmonella enterica subsp. enterica servar Typhi G, Species: Salmonella enterica subsp. enterica servar Typhi A, Note: this species has also been called Salmonella typhi C, Date: 09-Nov-2001 #sequence_revision 09-Nov-2001 #text_change 18-Nov-2002 C, Accession: AB1061
R; Parkhill, J., Dougan, G; James, K.D.; Thomson, N.R.; Pickard, D.; Wain, J.; Churcher, th, T.; Connerton, P.; Cronin, A.; Davis, P.; Davies, R.M.; Dowd, L.; White, N.; Farrar, S.; Moule, S.; O'Gaora, P.
Nature 413, 848-852, 2001
A; Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; A; Title: Complete genome sequence of a multiple drug resistant Salmonella enterica servy A; Rocession: AB1061
A; Status: preliminary
A; Molcule type: DNA
A; Residues: 1-395 cPAR>
A; Cross-references: GB:AL513382; PIDN:CAD06935.1; PID:g16505583; GSPDB:GN00176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cyperates 102-011-1996 #sequence_revision 02-011-1996 #text_change 09-011-2004
CyAccession: 149199
CyAccession: 149199
CyAccession: 149199
CyAccession: 149199
CyAccession: 149199
Ayritle: The cloning of Grb10 reveals a new family of SH2 domain proteins.
Ayritle: The cloning of Grb10 reveals a new family of SH2 domain proteins.
Ayrecession: 149199
Ayrecession: 1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       172 EVSQSHPAMTAFCSL-----LLO-----AQSLLPRTWAAPQDSLRPGEEDEG 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         65 TALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVILONMAAHWVFLETHDGHPOLTN 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        growth factor receptor binding protein Grb10 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LRRLQEEDQQLRTA-----APGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            214 MOLLOTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANGAQPCSSLPGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5 ALVLSCLLTFLVLMRSLVTHRLGSGGSGDGQFSWNLFSVPLPLPPLAGLLVQQIIFFLGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 274 PPSITPAM----QPAGPP-DHXGXVEVCLHWEPXXGSAP-PTWLWESQQGFWRKKL 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels 39; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 2; Length 395;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5.1%; Score 87; DB 2; Length 621; 21.7%; Pred. No. 12; ive 28; Mismatches 59; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 5.2%; Score 88.5; Di
Best Local Similarity 26.2%; Pred. No. 5.2;
Matches 37; Conservative 20; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            125 RRVLYAATFLLFPLNVLVGAM 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | | ::: : | ::
---LYIVLYIISLVTIAVGGL 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 21.74
Matches 38; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Gene: STY4813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      연
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
```

```
Cispecies: Versinia pestis
Cispecies: Versinia Versinia pestis, the causative agent of plague.
A. M. Sispecies: Versinia pestis, the causative agent of plague.
A;Reference number: AB0001; MUID:21470413; PMID:11586360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A, Cross-references: UNIPROT: Q82CM3; GB: AL590842; PIDN: CAC92204.1; PID: 915980916; GSPDB: C
                                                                                  M.J.; Br
K.; Lim,
                                                                                                                                                                                                                                                                                                                                           A;Molecule type: DNA
A;Residues: 1-301 <STO-
A;Cross-references: UNIPROT:Q915M4; GB:AE004506; GB:AE004091; NID:g9946584; PIDN:AAG0409
A;Experimental source: strain PAO1
                                                                                                                                                                                                     A,Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic pathc A,Reference number: A82950; MUID:20437337; PMID:10984043
                                                                                      P.; Hickey,
A.; Larbig,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FPRSLESSWPFWLTLALAVILONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLV 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAMXXXCSPSIAIRHPTPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQ 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     203 DSLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLH------NPTLQVF 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               185 AFA-----IGIQLLLQHSNV--DMRIGGLRHVFAWAPLHRLHHRYGRAGDVNFALFFS 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----- RSALLWRLH--- 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----AVHHSVQRLYGFNGLMKHPLHLGLEALGGTLPLLLLG---VPQTVAALL 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95
Cispecies: Pseudomonas aeruginosa
Cispate: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
Cisccession: GBS56
Ristover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hick
adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Lark
.; Lory, S.; Olson, M.V.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : ||| |:|| 36 VALFLGALGLSFLAERRLFYQPRWNRPHADRLRDVLHASVNBSLNALGILALPLLAGVLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 301;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ---NLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 237 VWDRLLGTALHRPDYRLDSTDMGI--GDQPDYPRDYAG 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ---LMPVLHGR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5.1%; Score 86.5; DB 2;
11arity 21.9%; Pred. No. 5.7;
Conservative 27; Mismatches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 254 RKTALLGANGAQPCSSLPGSPPSITPAMQPAGPPDHXG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                58 IIFFLGTTALAFLV----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Superfamily: sfuB protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A Status: preliminary
A Molecule type: DNA
A;Residues: 1-528 <KUR>
                                                                                                                                                                                                                                                                                                        A;Status: preliminary
```

15;

Gaps

Indels 112;

129;

Length 528;

; ;

5.1%; Score 86; DB 22.3%; Pred. No. 12; tive 31; Mismatches

RESULT 15 S40085 hypothetical protein 4 - Lactococcus lactis CySpecies: Lactococcus lactis CyDate: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004 C;Accession: S40085	R; Eaton, T.J.; Shearman, C.; Gasson, M. submitted to the EMBL Data Library, December 1993 A; Description: Cloning and sequence analysis of the DNAK gene region of Lactococcus lac A; Reference number: \$40082 A; Accession: \$40085 A; Status: preliminary A; Molecule type: DNA A; Residues: 1-614 < EAT> A; Residues: 1-614 < EAT> A; Residues: 1-614 < EAT> A; Cross-references: UNIPROT: P42377; EMBL: X76642; NID: 9435489; PIDN: CAAS4090.1; PID: 9435	Query Match 5.1%; Score 86; DB 2; Length 614; Best Local Similarity 19.9%; Pred. No. 14; Matches 49; Conservative 35; Mismatches 74; Indels 88; Gaps 11;	OY 5 ALVLSCLLTFLVIAMRSLVTHRLGSGGSGDGQFSWNLFSVPLPLPPLAGLLVQQI 58	0	
6 LVLSCLLTFLVLMRSLVTHRLGSGGSGDGQFSWNLFSVPLPLPPLAGLLVQQIIFFLGTT 65	AVILONMAAHW : :	218 QTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANGAQ 265 , :		RESULT 14 Ag7673 Ag760 Cipate: 20-Apt-2001 #sequence_revision 20-Apt-2001 #text_change 09-Jul-2004 B.; Laub, M.T.; DeBoy, R.T.; Dodson, R.J.; Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Kolon D. J.; Ermolavea, M. T.; Dodson, R.J.; Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Kolon D. J.; Ermolavea, M. T.; Dodson, R.J.; Durkin, A.S.; Gwinn, M.L.; Haft, D.H.; Kolon D. Aj.Tille: Complete Genome Sequence of Callobacter crescentus Aj.Reference number: Ag7249; WulD:21173699; PMID:11259647 Aj.Status: preliminary Aj.Residues: 1.582 &SGD> Aj.Cross_references: UNIPROT.Q9A277; GB:AE005673; NID:g13425133; PIDN:AAK25381.1; GSPDB:CGCGentics: Aj.Residues: 1.582 &SGD> Aj.Cross_references: UNIPROT.Q9A277; GB:AE005673; NID:g13425133; PIDN:AAK25381.1; GSPDB:CGCGentics: Aj.Gentics: C3419 Query Match Best Local Similarity 24.3%; Pred. No. 13; Buttches 74; Conservative 30; Missaatches 113; Indels 88; Gaps 14; Buttches 74; Conservative 30; Missaatches 113; Indels 80; Gaps 14; Buttches 74; Conservative 30; Missaatches 113; Indels 80; Gaps 14; Buttches 74; Conservative 30; Missaatches 113; Indels 80; Gaps 14; Buttches 74; Conservative 30; Missaatches 113; Indels 80; Gaps 14; Buttches 74; Conservative 30; Missaatches 113; Indels 80; Gaps 14; Buttches 74; Conservative 30; Missaatches 113; Indels 80; Gaps 14; Buttches 74; Conservative 30; Missaatches 113; Indels 80; Gaps 14; Buttches 74; Missaatches 113; Indels 80; Gaps 14; Buttches 74; Missaatches 113; Indels 80; Gaps 14; Buttch	245 LHNPTLQVFRKTALLGANGAQPCSSLPGSPPSITPAMO-PAGPPDHKGX 292

This Page Blank (uspto)

```
GenCore version 5.1.6

Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: February 8, 2005, 13:21:20 ; Search time 142.653 Seconds

(without alignments)

1166.650 Million cell updates/sec

Title:

US-09-816-653A-4

Perfect score: 1695
Sequence:

1 CYISALVLSCLLTFLVLMRS......APPTWLWESQQGFWRKKLVG 325

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 1612378
```

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0*

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : UniProt_03:*
 1: uniprot_sprot:*
 2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	homo	homo	homo	homo	homo	homo	mus m	шnв	шпв	_			•					-		Q6zrs5 homo sapien	O83179 treponema p										Q72wp1 desulfovibr
ID	Q7L9G1	Q8TB21	Q9BX79	Q7Z3U9	Q9BX78	Q71RB9 .	070491	Q6DIA8	Q69ZH3	Q8C716	Q9DBN1	Q8PBV8	Q7NYU4	Q7TNJ2	Q9ER60	Q6D2F7	GCSB HUMAN	Q7MSH9	Q7NRX1	Q6ZRS5	083179	Q82BH0	Q6CKC6	Q888F0	QBNP08	Q7WAG2	Q7WJK9	Q71ES1	Q8M258	Q69YS5	Q72WP1
DB	2	N	N	7	~	7	~	~	7	~	~	N	~								~	7	7	~	7	~	~	7	~	~	7
Length	260	667	667	708	658	286	670	670	322	621	621	618	572	2170	1841	525	403	494	336	595	593	1514	913	275	526	273	273	378	482	540	465
a c *	65.5	65.5	65.5	65.5	65.3	60.3	49.1	49.1	7.8	7.8	7.8	6.8	٠.	o.0			5.8	5.8	5.7	5.7	5.7	5.7	5.7	5.6			•	5.6	•	5.6	5.5
	1110.5	1110.5	1110.5	1110.5	1106.5	1022.5	832.5	832.5	133	133	133	115.5	100.5	100	98.5	98	97.5	97.5	97	97	96.5	w	96	ω.	95.5	95	95	94.5	94.5		94
Result No.	-	7	m	4	īŪ	9	7	80	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Q15654 homo sapien Q6vvu0 herichthys Q8dm47 synechococc Q75xx9 homo sapien Q75ry0 homo sapien Q75ry0 homo sapien Q9p3b4 neurospora Q86s8 homo sapien Q81xy2 homo sapien Q9bzc4 homo sapien Q8m6z9 pfiesteria	Q71es3 betta pi. c
TRIG HUMAN Q6VVUO Q15EXY Q15EXY CINS HUMAN Q15EX Q11ES2 Q913B4 Q915EX Q965S6 Q965S6 Q965C4 Q965C4 Q96C2	Q71ES3
40001000000000	10
476 378 279 1962 2016 2016 378 796 2008 2146 2146	378
លលលលលលលលលលលល លល់ល់ល់លំលំងងងងងំង	. v.
6 6 6 8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	91.5
W W W W W W W W W W W W W W W W W W W	45

ALIGNMENTS

4

1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD-------GQFSWNLFS 42

ઠે

셤 à g ò 엄 ò g à 셤

à

```
CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD--
CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AF352728; AAK30289.1; -. EMBL; AY359089; AAQ89447.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          65.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUN-2001 (TrEMBLrel. 17,
01-JUN-2001 (TrEMBLrel. 17,
05-JUL-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 76.6
Matches 232; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORFNames=UNQ3126;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   264 AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AQP 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        , 8U9H9Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRA6 isoform 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pennica D.
                                                                                                                           43
                                                                                                                                                                                                                                             103
                                                                                                                                                                                                                                                                                                                                                               150
                                                                                                                                                                                                                                                                                                                                                                                                                       545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9BX79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9BX79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HID DELLE SERVICE SERV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                        ò
                                                                                                                                                                            용
                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDINE-Erain;

MEDINE-Erain;

MEDINE-238825; PubMed=12477932; DOI=10.1073/pnas.242603899;

MEDINE-238825; PubMed=12477932; DOI=10.1073/pnas.242603899;

MEDINE-238825; PubMed=12477932; DOI=10.1073/pnas.242603899;

MA Altschul S. F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Altschul S. F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Haieh F.,

A Diatchenko L., Marusina K., Parmar A., Rubin G.M., Hong L.,

A Diatchenko L., Marusina K., Farmer A., Rubin G.M., Hong L.,

Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

Brownstein M.J., Uddin T.B., Toshiyuki S., Abramson R.D., Mullahy S.J.,

Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunarante P.H.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

W. Hilalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,

Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Makealey R. W., Touchman J.W., Green E.D., Dickson M.C.,

Marka M.A., Marra M.A.,

M. Green E., Schnetch A., Schnetch A., Schnein J.E.,

M. Topenstion and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4
         AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI 377
                                                                                                                                                                                                                 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------ 149
                                                                                                                                                                                                                                                   203
                                                                                                                                                                                                                                                                                                                                                                                              497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                557
                                                                                               VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI 102
                                                                                                                                                                                                                                                                                                                                                                           GQMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    150 -SPSIAIRHP----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SLRPGEEDEGMOLLOTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 76.6%; Pred. No. 2.8e-81;
Matches 212; Conservative 4; Mismatches 30; Indels 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Strausberg R.;
Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; BC025256; AAH25256.1; -. SEQUENCE 667 AA; 73532 MW; 120685F4635CB0E5 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JUN-2002 (TrEMBLrel. 21, Created)
01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
01-GCT-2002 (TrEMBLrel. 22, Last annotation update)
Stimulated by retinoic acid gene 6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   667 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sednences."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Proc. Natl. Acad.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AOP 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=FLJ12541;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and mouse
                                                                                                     43
                                                                                                                                                                318
                                                                                                                                                                                                                          103
                                                                                                                                                                                                                                                                                                                                                                                                    438
                                                                                                                                                                                                                                                                                                                                                                                                                                                               204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q8TB21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 2
```

```
425 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI '484
                                                                                                                                                                                                                                                                                              544
                                                                                                                                                                                                                                                                                                                                                      203
                                                                                                                                                                                                                                                                                                                                                                                                             604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    42
                                                       424
42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            --GOFSWNLFS
                                 SIRPGEBDEGMOLLOTKDSMAKGARPGAXRGRARMGLAYTLIHNPTLQVPRKTALLGANG
---GOFSWNLFS
                                                                                                                  VPLPLPPLAGLLVQQ11FFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                   -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dowd P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: bioinformatics assessment."; Genome Res. 13:2265-2270(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Overexpression of the retinoic acid-responsive gene Stra6 in human cancers and its synergistic induction by Wnt-1 and retinoic acid."; Cancer Res. 0:0-0(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=2288726; PubMed=12975309; DOI=10.1101/gr.1293003; Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D., Brush J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd Baton D., Poster J., Grimaldi C., Gu Q., Hass P.E., Heldens S., Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee J., Lewis L., Liao D., Mark M., Robbie E., Sanchez C., Schoenfeld J., Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts Avandlen R., Watanabe C., Wieand D., Woods K., Xie M.H., Yansura D. Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (Human).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Szeto W., Jiang W., Tice D.A., Rubinfeld B., Hollingshead P.G., Fong S.E., Dugger D.L., Pham T., Yansura D.G., Wong T.A., Grimaldi J.C., Corpuz R.T., Singh J.S., Frantz G.D., Devaux B., Crowley C.W., Schwall R.H., Eberhard D.A., Rastelli L., Polakis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1110.5; DB 2; Length 667;
Pred. No. 2.8e-81;
4; Mismatches 30; Indels 37;
                                                                                                                                                                                                                                       LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73502 MW; D20840A46998BA2E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
```

``

```
PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          [2]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AQP 266
|||
||||
AQP 708
                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9606;
                                                                                                                                                                                                                      STRA6 isoform 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             264
                      904
                                                                                                                   Q9BX78
Q9BX78;
                                                                              RESULT 5
COBEX78
COBEX78
COBEX78
COBEX78
COBEX78
COC BURAN
COC BUR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ठ
                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SLRPGEBDEGWQLLQTKDSNAKGARPGAXRCRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFRSLESSWPFWLTLALAVI 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         203
                                                                                                                                          149
                                                                                                                                                                                                                      203
                                                                                                                                                                                                                                                              604
                                                                                                                                                                                                                                                                                                                                          664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42
                                                                                                                                                                           485 LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMVATWRVLLSALYNAIHL 544
                                                                                                                                                                                                                                                                                                   SLRPGEEDEGMOLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
TISSUE-thuan endometrium;
POUSTKA A., Albert R., MOOSMAYER P., Schupp I., Wellenreuther R.,
Mewes H.W., Weil B., Amid C., Osanger A., Fobo G., Han M., Wiemann S.;
Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
EMBL, BXS37413; CA9976555.1;
Hypothetical protein.
                                                                                                                                                                                                                                                                                                                       --GOFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GONDLSLLPPRAATLDPGYYYYRNFLKIEVSQSHPAMTAFCSLLLGAQSLLPRTWAAPQD
                                                                                                                                                                                                                                               150 -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
    -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                             43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                   425 AYQTAFICLGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI
                                                                                                                                          LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      37; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human).
Sukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates; Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2; Length 708;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            103 LQNWAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              708 AA; 77825 MW; DB88B84AEAD286ED CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-0CT-2003 (TrEMBLrel. 25, Created)
01-0CT-2003 (TrEMBLrel. 25, Last sequence update)
01-0CT-2003 (TrEMBLrel. 25, Last annotation update)
Hypothetical protein DKFZp686F1959 (Fragment).
Name=DKFZp686F1959;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 65.5%; Score 1110.5; DB 2; 76.6%; Pred. No. 3e-81; tive 4; Mismatches 30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            708 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 232; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AQP 266
                                                                                                                                                                                                                                                                                                                                                                                   AQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                           AOP 667
                                                                                                                                              103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 646
                                                                                                                                                                                                                          150
                                                                                                                                                                                                                                                                                                                                                                                   264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        264
                                                                                                                                                                                                                                                                                                     204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              072309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q7Z3U9
                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                             a
                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                     ઠે
                                                             ठ
                                                                                                   g
                                                                                                                                            δ
```

```
416 AYQTAFICLGILVQQIIFFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -SPSIAIRHP-----TPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GOMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          356 CYISALVLSCLLTFLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  43 VPLPLPPLAGILIVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ------GOFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDILISE-22887296; PubMed=12975309; DOI=10.1101/gr.1293003; Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D., Brush J., Chen J., Chow B., Chowley C., Currell B., Deuel B., Dowd P. Batcon D., Foster J., Grimaldi C., Gu Q., Hass P.E., Heldens S., Leun D., Foster J., Kilmowski L., Jin Y., Johnson S., Lee J., Lewis L., Liao D., Mark M., Robbie E., Sanchez C., Schoenfeld J., Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts A., Vist, Watanabe C., Wieand D., Woods K., Xie M.H., Yansura D., Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I., Godowski P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Overexpression of the retinoic acid-responsive gene Stra6 in human cancers and its synergistic induction by Wnt-1 and retinoic acid."; Cancer Res. 0:0-0(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ь.
Т
                                                                                                                                                                                                                                                              Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                              Szeto W., Jiang W., Tice D.A., Rubinfeld B., Hollingshead P.G., Fong S.E., Dugger D.L., Pham T., Yansura D.G., Wong T.A., Grimaldi J.C., Corpuz R.T., Singh J.S., Frantz G.D., Devaux B., Crowley C.W., Schwall R.H., Eberhard D.A., Rastelli L., Polakis Pennica D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2; Length 658;
                                                                                                                                                                                             ORFNames=UNQ3126;
Amono sapienne (Human).
Eukaryota Satazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 76.2%; Pred. No. 5.7e-81;
Matches 231; Conservative 5; Mismatches 30; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bioinformatics assessment.";
Genome Res. 13:2265-2270(2003).
EMBL; AR352729; AAK30290.1; -.
EMBL; AX356748; AAQ89108.1; -.
SEQUENCE 658 AA; 72582 MW; 5405281727F647DD CRC64;
                                                                                             Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD-
Ą
658
                                                                 Created)
                                                              01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, 05-JUL-2004 (TrEMBLrel. 27,
```

4

102 475 203

263 655 us-09-816-653a-4.rup

Q71RB9 Q71RB9;

11RB9

임

```
The SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

STRANI=C57BL/6; TISSUE=Eye;

A Stransberg R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Altschul S.F., Zordan H., Moore T., Max S.I., Wang J., Hong L.,

Diatchenko L., Marueina K., Farmer A.A., Rubin G.M., Hong L.,

Diatchenko L., Marueina K., Farmer A.A., Rubin G.M., Hong L.,

Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mulahy S.J.,

Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratue P.H.,

Richards S., Morley K.C., Hale S., Garcia, A.M., Gabbs R.A.,

Richards S., Morley K.C., Hale S., Garcia, A.M., Gabbs R.A.,

Rubin J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              426 AYQTAFSCLGLLVQQVIFFLGTTSLAFLVFVPLLHGRNLLLLRSLESTWPFWLTVALAVI 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXCSPSIAIRHPT--- 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLG--A 261
                                                                                                 "Developmental expression pattern of Stra6, a retinoic acid-responsive gene encoding a new type of membrane protein."; Mech. Dev. 63:173-186(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          43 VPLPLPPLAGILVQOIIFFLGTTALAFLVLMPVLHGRNILFFRGLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           --- PGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
MEDLINE=97346723; PubMed=9203140; DOI=10.1016/S0925-4773(97)00039-7; Bouillet_P., Sapin V., Chazaud C., Messaddeq N., Decimo D., Dolle P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CYISALVLSCLLTFLVLMRSLVTHR----LGSGGSGD-----
                                                                                                                                                                                                                                                                                         Submitted (APR-1998) to the EMBL/GenBank/DDBJ databases.
EMBL, AF062476; AAC16016.1; -.
MGD; MGI:107742; Stra6.
GO; GO:0016021; C:integral to membrane; TAS.
SEQUENCE 670 AA; 73774 MW; 6ACE69F3EE16A4F7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49.1%; Score 832.5; DB 257.7%; Pred. No. 8.1e-59; iive 28; Mismatches 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 57.7% Matches 176; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          262 NGAQP 266
                                                                                                                                                                                                                                       SEQUENCE FROM N.A. Bouillet P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Stra6 protein.
                                                                             Chambon P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Name=Stra6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    O6DIA8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 8
Q6DIA8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The state of the s
                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 FFLGTTALAFLVLMPVLHGRNLLLFRSLESSWPFWLTLALAVILQNMAAHWVFLETHDGH 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MKSLVTHRINLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFSAYQTAFICLGLLVQQII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60 FFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVILQNMAAHWVFLETHDGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18 MRSLVTHR-----LGSGGSGD------GQFSWNLFSVPLPLPPLAGLLVQQII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PQLINRRVLYAATFLLFPLNVLVGAMXXXC------SPSIAIRHP----TP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTWAAPQDSLRPGEEDEGMQLLQTK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=9537753; PubMed=7649373; DOI=10.1006/dbio.1995.1226; MEDLINE=9537753; PubMed=7649373; DOI=10.1006/dbio.1995.1226; Bouillet P., Oulad-Abdelpani M., Vicaire S., Garnier J.M., Schubbaur B., Dolle P., Chambon P.; "Efficient cloning of cDNAs of retinoic acid-responsive genes in P19 embryonal carcinoma cells and characterization of a novel mouse gene, Stra1 (mouse LERK-2/Ep192)."; Dev. Biol. 170:420-433(1995).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus. NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zu J.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60.3%; Score 1022.5; DB 2; Length 286; 74.8%; Pred. No. 1.4e-74; ive 5; Mismatches 30; Indels 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLGANGAOP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241 DSMAKGARPGASRGRARWGLAYTLIHNPTLQVFRKTALLGANGAQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
Wan D.F., Qin W.X., Zhou X.M., Zhang P.P., Jiang H.Q., Z
Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases.
EMBL, AR370419, AAQ15255.1; -.
Hypothetical protein.
SEQUENCE 286 AA; 31877 MW; 24E6A620844A5EFB CRC64;
                                                                                                                                                                                                                                                    05-JUL_2004 (TrEMBLrel. 27, Last sequence update) 05-JUL_2004 (TrEMBLrel. 27, Last annotation update) Hypothetical protein PP14296.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-AUG-1998 (TrEMBLrel. 07, Created)
01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
01-NOV-1999 (TrEMBLrel. 12, Last annotation update)
Retinoic acid-responsive protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            670 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Siminarry
Matches 214; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        [2]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                       AOP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Name=Stra6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                       959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
```

070491;

APAC SERVICE REPORTS THE REPOR

070491

요

ò

요

ò

g

셤 ઠે

ò

셤

ò

203

42

---GQFSWNLFS

Length 670;

Indels

7.

54;

Length 322;

2

```
50 LAGILVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAV---ILQNM 106
                                                                                                                                                                    LWGYLIIHVVQSLCGVMLMYGLVLPIIHHRGL---EMLOGFGLGVLTLSIVVGLIILQVW 145
                                                                                                                                                                                                                                                     -----RHPTPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMA 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                      200 APQDSLRPGEEDEGMQLLQTKDSMAKGARPG-AXRGRARWGLAYTLLHNPTLQVFRKT 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the RIKEN Genome Exploration Research Group Phase I & II Team; "Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length CDNAs.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=C5'BL/6J; TISSUE=Liver;
MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M., Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;
Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes.";
Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAINE-CS7BL/6J; TISSUB-Liver;
MEDLINE-S9272/6J; TISSUB-Liver;
MEDLINE-S9272/6J; PubMed-10349636; DOI=10.1016/S0076-6879(99)03004-9;
Carninci P., Hayashizaki Y.;
"High-efficiency full-length cDNA cloning.";
Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                           107 AAHWVFLETHDGHPQ-----LTNRRVLYAATFLLFPLNVLVGAMXXXCSPSIAI----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Mus musculus adult male liver tumor CDNA, RIKEN full-length enriched library, clone:C730023F16 product:hypothetical protein, full insert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŚEGUENCE FROM N.A.
STRAIN-CSTAIL/GG; TESUBE-Liver;
MEDLINE-20530913; PubMed=11076861; DOI=10.1101/Gr.152600;
Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P.,
                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=CS7BL/6J; TISSUB=Liver;
MEDLINE=2108560; PubMed=11217851; DOI=10.1038/35055500;
RIKEN FANTOM Consortium;
"Functional annotation of a full-length mouse cDNA collection.";
Nature 409:685-690(2001).
                                                                         92; Indels
                          ,
,
                       7.8%; Score 133; DB 2; 23.1%; Pred. No. 0.012; iive 37; Mismatches 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. STRAIN=C57BL/6J; TISSUE=Liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nature 420:563-573(2002).
                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name=1300002K09Rik;
                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            seguence
                            Query Match
                                                      Best Local
Matches 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q8C716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 10
Q8C716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                         셤
                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  426 AYQTAFSCLGLLVQQVIFFLGTTSLAFLVFVPLLHGRNLLLLRRSLESTWPFWLTVALAVI 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LONMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXCSPSIAIRHPT--- 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLRPGEEDEGMOLLQTKDSMAKGARPGAXRGRARWGLAYTLLHNPTLQVFRKTALLG--A 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       42
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUB-Embryonic intestinal tract;
Okazaki N., Kikuno R.F., Ohara R., Inamoto S., Koseki H., Hiraoka S., Saga Y., Saino S., Nishimura M., Kaisho T., Hoshino K., Kitamura H., Nagase T., Ohara O., Koga H.;
Nagase T., Ohara O., Koga H.;
Prediction of the Coding Sequences of Mouse Homologues of KIAA Gene:
IV. The Complete Nucleotide Sequences of 500 Mouse KIAA-Homologous cDNAs Identified by Screening of Terminal Sequences of cDNA Clones Randomly Sampled from Size-Fractionated Libraries.";
DNA Res. 11:205-218(2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -- PGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMAAPQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CYISALVLSCLLTFLVLMRSLVTHR-----LGSGGSGD-------GQFSWNLFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       43 VPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   39; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Craniata, Vertebrata, Euteleostomi;
Sciurognathi, Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 670;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                 Strausberg R.; Strausberg R.; Strausberg R.; Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases. EMBL; BC07557; AAH75657.1; -. GO; GO:0016021; C:integral to membrane; TAS. SEQUENCE 670 AA; 73715 MW; 96F963788EF91249 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 322 AA; 36477 MW; AD7B68DFC7A34578 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                 Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                    49.1%; Score 832.5; DB 2; 57.7%; Pred. No. 8.1e-59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           322 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
MCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MKIAA1529 protein (Fragment).
Name=mKIAA1529;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-0CT-2004 (TrEMBLrel. 28,
25-0CT-2004 (TrEMBLrel. 28,
25-0CT-2004 (TrEMBLrel. 28,
                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
STRAIN=C57BL/6; TISSUE=Eye;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 57.7%
hes 176; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NGAQP 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                160
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EHZ69C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCOCCOS NOT THE SECTION OF THE SECT
               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
```

enriched

```
Meth. Enzymol. 303:19-44(1999).
     7
                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
SEQUENCE TO Alzawa K., Akimura T., Arakawa T., Bono H., Carninci P., Adacil J., Aizawa K., Akimura T., Hara A., Hashizume W., Fukuda S., Furuno M., Hanagaki T., Hara A., Hashizume W., Hayashida K., Hayatsu N., Hiraoka T., Hirozane T., Hayashida K., Hayashi Y., Kondo S., Konno H., Kawai J., Kojima Y., Kondo S., Konno H., Koda M., Koya S., Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M., Nimira K., Numara K., Numazaki R., Ohno M., Ohato N., Okazaki Y., Sato R., Saito R., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M., Tomaru A., Takahashi F., Takaku-Akahira S., Takada T., Tanaka T., Aramishi A., Muramatsu M., Hayashizaki Y., Submitted (UUL-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              388 LWGYLIIHVVQSLCGVWLMYGLVLPIIHHRGL---EMLQGFGLGVLTLSIVVGLIILQVW 444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                107 AAHWVFLETHDGHPQ-----LTNRRVLYAATFLLFPLNVLVGAMXXXCSPSIAI----- 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ------RHPTPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMA 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           200 APQDSLRPGEEDEGMQLLQTKDSMAKGARPG-AXRGRARWGLAYTLLHNPTLQVFRKT 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Mus musculus adult male liver cDNA, RIKEN full-length enriched
library, clone:13000002K09 product:hypothetical protein, full insert
sequence (Mus musculus adult male liver tumor cDNA, RIKEN full-length
enriched library, clone:C730040D15 product:hypothetical protein, full
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             50 LAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAV---ILQNM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                445 IAGTFFLOPKLGTSDKOKPLALNNRRAFHNFNYFLFFYNVLLG--LGACLSRLLISCLLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |: : | : : | | : : | : : | : : | | : : | | : : | | : : | | | : : | | | : : | | | | | | | | | | | | | | | | | |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=CS7BL/6J; TISSUE=Liver;
MEDLINE=99279253; PubMed=10349636; DOI=10.1016/S0076-6879(99)03004-9;
CarninE: P., Hayashizaki Y.;
"High-efficiency full-length cDNA cloning.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M., Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A., Yamamoto R., Matsunoto H., Sakaguchi S., Ikegami T., Kashiwagi K., Pujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y., "RIKEN integrated sequence analysis (RISA) system-384-format Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.8%; Score 133; DB 2; Length 621;
13.1%; Pred. No. 0.025;
.ve 37; Mismatches 92; Indels 54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      70903 MW; 7FAAC08C5CD00BBA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 23.1%; Fred. No. 0.025;
Matches 55; Conservative 37; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   621 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUN-2001 (TrEMBLrel. 17, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MGD; MGI:1921402; 1300002K09Rik.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AK050152; BAC34096.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               l protein.
621 AA; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        insert sequence).
Name=1300002K09Rik;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hypothetical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O9DBN1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ID DOT DOT DOT SERVING ON SERVING
          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
```

```
SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P., Aizawa K., Akimura T., Arakawa T., Hashizume W., Hayatsu N., Haramoto K., Hiraoka T., Hirozane T., Hayatsu N., Haramoto K., Hiraoka T., Hirozane T., Hayatsu N., Haramoto K., Hiraoka T., Hayatsu N., Kagawa I., Koda M., Koda M., Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kawai T., Kojima Y., Kondo S., Konno H., Nakamura M., Nishi K., Nomura K., Numazaki R., Ohno M., Ohsato N., Okazaki Y., Asito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sakazume N., Sano H., Tagawa A., Takahashi F., Takaku-Akahira S., Takeda Y., Tagami M., Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y., Submitted (JULl-2001) to the EMBL/GenBank/DDBJ databases.

EMBL, AKOSASSE, BABZ3619.1; --.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     the RIKEN Genome Exploration Research Group Phase I & II Team; "Analysis of the mouse transcriptome based on functional annotation of 60,770 full-length cDNAs."; Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Liver;
Adachi J., Alzawa K., Akahinci P., Fukuda S., Fukunishi Y., Furuno M.,
Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiracka T., Hori F.,
Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,
Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,
Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki T.,
Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,
Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshino M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh I Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.; Indication and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new genes Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-C57BL/61; TISSUE-Liver;

MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carninci P., Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M., Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A., Yamamoto R., Matsunato S., Hazama M., Nishine T., Rashiwagi K., Yamamoto R., Inoue K., Togawa M., Dara E., Watahiki M., Fujiwake S., Inoue K., Togawa K., Tanaka T., Matsuura S., Kawai J., Rishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Rishikawa T., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.; Rishika Sequence analysis (RISA) system-384-format Genome Res. 10:1757-1771(2000).
                                                                                                                                                                          "Functional annotation of a full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=C57BL/6J; IISSUE-Liver;
MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Muramatsu M., Hayashizaki Y.;
Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
                                      STRAIN=C57BL/6J; TISSUE=Liver;
MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MGD; MGI:1921402; 1300002K09Rik.
                                                                                                                                                                                                                                                                                                                                                                  STRAIN=C57BL/6J; TISSUE=Liver;
The FANTOM Consortium,
                                                                                                                                        RIKEN FANTOM Consortium;
                                                                                                                                                                                                                                         Nature 409:685-690(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
SEQUENCE FROM N.A
```

281

3

ò

ઠે

```
REPLINE=22882880; PubMed=14500782; DOI=10.1073/pnas.1832124100; RX MEDLINE=22882880; PubMed=14500782; DOI=10.1073/pnas.1832124100; RX MEDLINE=22882880; PubMed=14500782; DOI=10.1073/pnas.1832124100; RX Antonio R.V., Almeida P.C., de Almeida L.G.P., de Almeida R.T., de Almeida E.M., hangida M.F.P., and Antonio R.V., Almeida E.M., Araripe J., de Araujo M.F.P., RX Alves-Gomes J.A., Aravedoo V., Baptista A.J., Bataus L.A.M., Batista J.S., Belo A., van den Berg C., Bogo M., Bonatto S., A. Batista J.S., Belo A., van den Berg C., Bogo M., Burity H.A., RA Ganargo A.A., Cardoso D.D.P., Carneiro N.P., Carraro D.M., Carcardoo D.D.P., Carneiro N.C., Fagundes N., Falcao C.L., RA Fortinatif F., Fratis I.P., Felipa M.S.A., Furlan L.R., A Gazzinelli R.T., Gomes E.A., Goncalves P.R., Grangeiro T.B., Adatas H.M.F., Manfio G.P., Maranhao A.O., Martins W.S., Madeira H.M.F., Inma L.F.A., Loureiro M.S., Churin M.S., Andedera H.M.F., Manfio G.P., Maranhao A.O., Martins W.S., Andedera H.M.F., Manfio G.P., Maranhao A.O., Martins W.S., Andedera H.M.F., Manfio G.P., Maranhao A.O., Martins W.S., Andedera M., Pinto L.S.R.C., Pinto L.S., Porto J.I.R., Potrich D.P., RA Ramalho-Neto C.E., Reis A.M.M., Rigo L.U., Rondinelli E., Ranless R.R., Santos B.B.P., Santos B.R., Santos R.R., Santos B.R., Santos B.R., Santos B.R., Santos B.R., Santos R.R., Santos R.R., Santos B.R., Santos B.R
                                                                                                                                         381 AVKTELAĞLPPG-----TRVLA---ENFKVGAELGFQLHDAQIEVLGADL 422
                                                                                                                                                                                                                                 423 NDKHGRSAQ-----LAQWGLLSHGERSGPRLLVLSPSDQRYRDLLTRYHAICAMVGPLP 476
                                                         ----prpleratwilaligmi-gaysyylavsvpairaqaagekyyp-rnfagwkdlar 380
                                                                                                                                                                                                                                                                                                                           477 PPKVVSTDHGYQRFLLFALPAQRQPG--PCIAPAMAWIDTPLPGVAATTTMQVRGWAFKD 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -i - SIMILARITY: Belongs to the bacterial extracellular solute-binding
                                                                                                     169 -LKIEVSOSHPAMTAFCSLLLQAQSLLPRTWAAPQDSLRPGBE-----DEGMQLLQT--
                                                                                                                                                                                          220 KDSMAKGARPGAXRGRARWGL-----AYTLLHNPTLQVFRK-----TALLGA--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chromobacterium violaceum reveals
                  POLTNRRVLYAATFLLFPLNVLVGAMXXXCSPSI-AIRHPTPG--YYTYRNF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bacteria; Proteobacteria; Betaproteobacteria; Neisseriales;
Neisseriaceae; Chromobacterium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "The complete genome sequence of Chromobacterium vir
remarkable and exploitable bacterial adaptability."
Proc. Natl. Acad. Sci. U.S.A. 100:11660-11665(2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Probable periplasmic binding protein.
                                                                                                                                                                                                                                                                                 262 ----NGAQ-----PCSSLPGSPPSITPAM----
                                                                                                                                                                                                                                                                                                                                                                           ------QPAGPPDHXGXVEVCLHWE 300
                                                                                                                                                                                                                                                                                                                                                                                                                535 GVGLSRVELLVDGRPAGRADYGATLDVRPYWK 566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AE016914; AAQS8853.1; -
GO; GO:0005215; Firansportier activity; IEA.
GO; GO:0006810; P:transport; IEA.
InterPro; IPR002345; Lipocalin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                572 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TrEMBLrel. 26, (TrEMBLrel. 26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chromobacterium violaceum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OrderedLocusNames=CV1178;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein family 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=536;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-2004
                    120
                                                                328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q7NYU4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 13
Q7NYU4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                    8
                                                           셤
                                                                                                         ò
                                                                                                                                              ద
                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-ATCC 33913 / NCPPB 528;

MEDLINE=22022145; PubMed=12024217; DOI=10.1038/417459a;

A Quaggio R.B., Monteiro-Vitorello C.B., Van Sluys M.A., Almeida N.F.,
A Quaggio R.B., Monteiro-Vitorello C.B., Van Sluys M.A., Almeida N.F.,
A Alves L.M.C., do Amaral A.M., Bertolini M.C., Camargo L.E.A.,
Cicarelli R.M.B., Coulinho L.L., Cursino-Santos J.R., El-Dorry H.,
Faria J.B., Ferreira A.J.S., Ferreira R.C.C., Ferro M.I.T.,
Formighieri E.F., Franco M.C., Greggio C.C., Gruber A.,
Catsuyama A.M., Kishi L.T., Leite R.P., Lemos B.G.M., Lemos M.V.F.,
Martins B.C., Machado M.A., Madeira A.M.B.N., Martinez-Rossi N.M.,
Martins B.C., Meidanis J., Menck C.F.M., Miyaki C.Y., Moon D.H.,
Moreira L.M., Novo M.T.M., Okura V.K., Oliveira M.C., Oliveira V.R.,
Spinola L.A.F., Takita M.A., Tamura R.E., Teixeira B.C., Tezza R.I.D.,
A Trindade dos Sancos M., Truffi D., Tsai S.M., White F.F.,
Setubal J.C., Kitajima J.P.F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               63 GTTALAFLVLMPVLHGRNLLFFRSLES---SWPFWLTLALAVILQNMAAHWVFLETHDGH 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             327
                                                                                                                                50 LAGLIVQQIIPFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFWLTLALAV---ILQNM 106
                                                                                                                                                            503 TWLIARIDRIIMQSGYEGADMGFGAWIGMLFVDHYHTHPVLVSFCHILITS------ 553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 ISALVLSCLLTFLVLMRSLVTHRLGSGGSGDGQFSWNLFSVPLPPPLAGLLVQQIIFFL 62
                                                                                                                                                                                                                                                                                                                                                                                                  200 APQDSLRPGEEDEGMQLLQTKDSMAKGARPG-AXRGRARWGLAYTLLHNPTLQVFRKT 256
                                                                                                                                                                                                                                                                                                                                                                                                                           "Comparison of the genomes of two Xanthomonas pathogens with differing host specificities.",
                                                                                                                                                                                                                        107 AAHWVFLETHDGHPQ-----LTNRRVLYAATFLLFPLNVLVGAMXXXCSPSIAL----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels 165; Gaps
                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Xanthomonas campestris (pv. campestris).
Bacteria, Proteobacteria, Gammaproteobacteria, Xanthomonadales,
Xanthomonadaceae, Xanthomonas.
                                                                                     54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             286 GISTLAIFVLG-----FFSDAERISFHWPLPGYLALLVAAPVILMRW--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6.8%; Score 115.5; DB 2; Length 618; 23.0%; Pred. No. 0.66; artive 40; Mismatches 97; Indels 165
                                           7.8%; Score 133; DB 2; Length 621; 23.1%; Pred. No. 0.025;
                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            618 AA; 67854 MW; 93B6E2A062AD6B69 CRC64;
71002 MW; 909E1C6BC2A9EA60 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-OCT-2002 (TrEMBLrel. 22, Created)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
Hypothetical protein XCC1009.
                                                                                       92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              618 AA.
                                                                                       37; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nature 417:459-463(2002).
EMBL; AE012197; AAM40309.1; -.
                                                                  23.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OrderedLocusNames=XCC1009;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90; Conservative
                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
      621 AA;
                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Complete proteome
SEQUENCE 618 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=340;
                                                                                         55;
                                                                                                                                                                                                                                                                                                                 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                  554
      SEQUENCE
                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q8PBV8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            O8PBV8
      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
```

```
1617
                                                                                                                                                                                                                                                                                                       09ER60
                                                                                                                                                                                                                                                                                RESULT 15
                                                                                                                                                                                                                                                                                                                  ద
                                                                                                g
                                                                                                                                                g
                                                                                                                                                                                                                       ð
                                                  -8
                                                                            ò
                                                                                                                           8
                                                                                                                                                                        ò
                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19;
                                                                                                     14;
                                                                                                                                                                                                                       118 GHPQLTNRRVLYAATFLLFPLNVLVGAMXXXCSPSIAIRHPTPGYYT-YRNFLKIEVSQS 176
                                                                                                                                                                                                                                       211 GGP-----LDAET-------AAASLLRLKQPDNPYHALYAHLRRVDV--- 245
                                                                                                                                          177 HPAMTAFCSLLLQAQSLLPRTMAAPQDSLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRA 236
                                                                                                                            65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . .; IEA.
                                                                                                                                                                                                 175 DRLGOVLRPALAHHWEADPEGRN-----WRFWLRPG------LRFHD
                                                                                                                           17 LMRSLVTHRLGSGGSGDGQFSWNLFSVPLPLPPLA------GLLVQQIIFFLGTT
                                                                                                                                                                          66 ALAFLVLMPVL-----HGRNLLFFRSLESSWPFWLTLALAVILONMAAHWVFLETHD
                                                                                                                                                                                                                                                                                            246 HDALSPSCR-LTEADHLWPORLATANASIVP-----MRRSODFERMPVGSGPFRVE---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Name-ABCA7.

Rattus norvegicus (Rat).

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.

NCBI_TaxID=10116;
                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
E
                                                                                                     Indels 101;
                                                                               DB 2; Length 572;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5.9%; Score 100; DB 2; Length 2170; 23.7%; Pred. No. 46; ative 62; Mismatches 124; Indels 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GO:0016020; C:membrane; IEA.
GO:0005524; F:ATP binding; IEA.
GO:0042626; F:ATPase activity, coupled to transmembrane
GO:0000166; F:nucleotide binding; IEA.
GO:0006810; P:transport; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-Wister; TISSUE-Platelet; Sasaki M., Nada S., Yamaguchi A.; Submitted (DEC-2002) to the EMBL/GenBank/DDBJ databases.-I-SIMILARITY: Belongs to the ABC transporter family. BMB1, AB097914; BAC81426.1; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2170 AA; 237718 MW; 003C8DF70B8744CE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                          01-0CT-2003 (TrEMBLrel. 25, Created)
01-0CT-2003 (TrEMBLrel. 25, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
ATP-binding cassette transporter sub-family A member 7.
                                                       572 AA; 65364 MW; 937A150164700A29 CRC64;
                                                                                                     79;
                                                                             Ouery Match
Best Local Similarity 23.7%; Pred. No. 9.8;
Matches 64; Conservative 26; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                       PRT; 2170 AA.
                                                                                                                                                                                                                                                                                                                     237 RWGLAYTLLHNPTL-----QVFRKTALL 259
                                                                                                                                                                                                                                                                                                                                  Prodom; PD000006; ABC transporter; 2.
SMART; SM00382; AAA; Z.
PROSITE; PS00211; ABC TRANSPORTER_1; 1.
PROSITE; PS50893; ABC TRANSPORTER_2; 2.
                      Pfam; PF00496; SBP bac 5; 1. - PROSITE; PS00213; LIPOCALIN; UNKNOWN_1
InterPro; IPR000914; SBP_bac_5.
InterPro; IPR009058; Wing_hlx_DNA_bnd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR003593; AAA ATPase.
InterPro; IPR003439; ABC_transporter.
Pfam; PF00005; ABC_tran; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity 23.78
82; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                               Complete proteome.
SEQUENCE 572 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATP-binding
SEQUENCE
                                                                                                                                                                                                                                                                                                                                              296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                        O7TNJ2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                              Q7TNJ2
                                                                                                                                                                                                                                                                                                                                                                                                                    g
 셤
                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                     g
                                                                                                                                                                                                                         ò
                                                                                                                                ઠે
                                                                                                                                                                              ò
                                                                                                                                                                                                  g
```

3 ISALVLSCL---LTF-----LVLMRSLVTH-----RLGSGGSGD-----GQFSWNLFSVPL 45

ò

```
14;
1673 YVVLTCINLFIGINSSMATFVLELLSDQNLQEVSR--ILKQVFLIFPHFCLGRGLIDMVR 1730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PPWLT-LALAVILQNMAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVL-VGAMXXXC 149
                                                                                                                                                        91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Definition Description of State Stat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               150 SPSIAIRHPTPGYYTYRNFLKIE-VSOSHPAMTA-----FCSLLLQAQS-LLPRTMAAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ------AXRGRARWGLAYTLLHNPT
                                                                                                                                                   PLPPLAGLLVQQIIF-----FLGTTALAFLVLMPVLHGRNLL-----FFRSLESSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS50096; IQ; 1.
Ion transport; Ionic channel; Sodium channel; Sodium transport; Iransmembrane; Transport; Voltage-gated channel.
SEQUENCE 1841 AA; 208796 MW; 0766DFD33A9E0E55 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1841;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1845 GECF---GLLGVNGAGKTSTFRMVTGDTLPSSGEAVLAGHNVAQEP 1887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            250 LOVFRKTALLGANGAQPCS-----SLPGSPPSITPAMQPAGPP 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-WAR-2001 (TrEMBLrel. 16, Created)
01-WAR-2001 (TrEMBLrel. 16, Last sequence update)
01-WAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5.8%; Score 98.5; DB 2;
ilarity 22.0%; Pred. No. 51;
Conservative 35; Mismatches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MGD; MGI: 98250; Scn4a.

MGD; MGI: 98250; Scn4a.

GO; GO: 0016021; C: integral to membrane; TAS.
InterPro; IPR001682; Ca/Na_pore.
InterPro; IPR00211; Cat channel_TrpL.
InterPro; IPR005821; Ion_trans.
InterPro; IPR006821; Ion_trans.
InterPro; IPR001696; Na_channel_nlg.
InterPro; IPR001696; Na_channel_t.
InterPro; IPR001696; Na_channel_t.
InterPro; IPR010520; Ma_trans_assoc.
Pfam; PF00612; IO; I.
Pfam; PF00612; IO; I.
Pfam; PF00612; IO; I.
Pfam; PR00612; Na_trans_assoc; I.
PRINTS; PR00170; Na_trans_assoc; I.
PRINTS; PR00170; Na_trans_assoc; I.
PRINTS; PR00170; Na_CHANNEL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     202 ODSLRP--GEEDEGMQLLQTKDSMAKGARPG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Voltage-gated sodium channel.
Name=Scn4a;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN=balb/c, TISSUE=Heart;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SMART; SM00015; IQ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 67; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loca
Matches
```

Search completed: February 8, 2005, 13:40:10 Job time : 145.653 secs	Searc Job t
879 NKEL 882	q
292 XVEV 295	ð
833 FLLGLLHGKILSLKDIMLSLGEPGGAGENGESPPEDEKKEPPPEDG 878	qq
244LLHNPTLQVFRKTALLGANGAQPCSSLPGSPPSITPAMQPAGPPDHXG 291	δ
787 VLNIFLALLISSFSADSLAASDEDGEMNNLQIAIGRIKWGIAFAKT 832	qa
192SLLPRIMAAPQDSLRPGEEDEGMQLLQTKDSMAKGARPGAXRGRARWGLAYT 243	È
727 IASDCSLPRWHMDFFHSFLIVFRILGGEWIETMWDCMBVAGQAMCLTVFLMVMVIGNLV 786	셤
153 IAIRHPTPGYYTYRNFLKI	ò
680 LNWLIKIIGNSVGALGNLTLVLAIIVFIFAVVGMQLFGKSYKECVCK 726	qq
95 LTLALAVILQNWAAHWVFLETHDGHPQLTNRRVLYAATFLLFPLNVLVGAMXXXCSPS 152	ò
633 QQGWNIFDSFIVTLSLVELGLANVQGLSVLRSFRLLRVFKLAKSWP-T 679	ф
35 QPSWNLFSVPLPLPPLAGLLVQQIIFFLGTTALAFLVLMPVLHGRNLLFFRSLESSWPFW 94	ò

This Page Blank (uspto)